

1968

A Systems Approach to Consumer Motivation With Emphasis on Procedures Foridentifying Opinion Leaders.

Bruce Gunn

Louisiana State University and Agricultural & Mechanical College

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MOTIVATION WITH EMPHASIS ON PROCEDURES
FOR IDENTIFYING OPINION LEADERS.

Louisiana State University and Agricultural and
Mechanical College, Ph.D., 1968
Business Administration

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BRUCE GUNN

1969

A SYSTEMS APPROACH TO CONSUMER MOTIVATION WITH EMPHASIS
ON PROCEDURES FOR IDENTIFYING OPINION LEADERS

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Management and Marketing

by

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B.S., West Virginia University, 1962
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August, 1968

ACKNOWLEDGMENTS

The author is extremely appreciative of Dr. Raymond V. Lesikar for participating as chairman of this study. His contribution to this research project began several years ago when he helped provide the author with an opportunity to commence work on his doctorate.

Further gratitude is extended to him for his academic courage in approving a rather unorthodox approach to this topic as well as his careful scrutiny of the concepts which compose this research.

A special note of appreciation to Dr. David M. Robinson is forthcoming for his interest, encouragement, constructive criticisms, and unfailing good humor which served as a guiding light in bringing the author through this research project.

The author is deeply indebted to Dr. Kenneth L. Koonce, Experimental Statistics, for his significant contributions to the research design and analysis of the opinion leadership study. Also, the author is appreciative of Dr. Vincent Cangelosi, Business Statistics, and Dr. Sam Adams, Educational Statistics, for their observations on the statistical design of this study.

Sincere appreciation is extended to Dr. Lee Richardson for his guidance and ready helpfulness in pursuing the course of this research.

To Dr. Stanely W. Preston, who helped the author develop the original article from which this project evolved, the author extends his sincerest gratitude. Dr. Preston's original interest in the use of

analogies for model building has encouraged the writer immeasurably in the development of this system's approach to motivation.

Certainly this tribute would not be complete without the author expressing his deep gratitude to his parents, Mr. and Mrs. Will Gunn, Jr., for their devotion, encouragement, and parental support which resulted in the Will Gunn, Jr. Fellowship award for the academic year, 1967-68. This enabled the author to devote full time and energy to pursuing this research.

Although the author is indebted to many people, no one's contribution to the author's career or to this research project can overshadow the contribution of the author's wife, Esther. For her inexhaustible energy, encouragement, for her typing and grammatical abilities, and her endless patience as a sounding board for ideas, she deserves a family Nobel prize but has always settled for an affectionate "Thanks." Few individuals can fully appreciate the virtue of such a companion until they have travelled this route, nor can any tribute fully repay her for her contributions to this study short of a co-authorship.

Finally, the author wishes to thank the following persons for their special contributions to this project: Dr. Allen H. Barton, Director of the Bureau of Applied Social Research; Miss Julia Waits, Assistant Dean of Women; Miss Deidri B. Lockwood, President of Gamma Phi Beta Sorority; Miss Katherine Hebert, President of Delta Gamma Sorority; Miss Carol L. Clawson, President of Kappa Alpha Theta Sorority; Miss Rebecca Nystrom, President of Phi Mu Sorority; Miss Kathleen Daigre, President of Alpha Xi Delta Sorority; Miss Patcie Cunningham, President

of Alpha Delta Pi Sorority; Miss Vicki McFerron, President of Alpha Chi Omega Sorority; Miss Elaine M. deFrances, President of Omicron Pi Sorority; Colonel E. J. Costello, Technical Liaison Officer, Department of the Army; Mr. Donald A. Williams, Administrator of the United States Soil Conservation Service; Dr. Albert D. Biderman, Bureau of Social Science Research, Inc.; and Dr. Edgar H. Schein, Center of International Studies.

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ABSTRACT

This dissertation has been advanced for the purpose of providing a unified interdisciplinary approach to the study of consumer motivation. The medium of system's theory was utilized in this research to bridge the theoretical gap between physical, organic and social productive systems. From this analysis the central thread of thought for successfully unraveling the complexities of consumer motivation was derived. That is, it was posited that the basic drive of all matter is to achieve and maintain a position in the environment. To accomplish this goal, energy must be transformed within the given system and is usually referred to as motivation in anthropomorphous systems. This study emphasized that organic and social systems function as open systems to slow the entropy process in order to perpetuate their existence in the environment.

Since social systems can be seen to represent an extension of the organizational principles of organic systems, social primates must contend with a physical and a social environment in their drive to achieve homeostasis in their surroundings. These diverse environments necessitate that man be motivated by a dichotomous need hierarchy, i.e., survival (primary needs) in the physical environment and security (secondary needs) in the social environment. Thus, the will of man to achieve and maintain a position in American culture's social mobility continuum has been epitomized in the concept of "the goal of

self enhancement." This concept is posited to represent the center of gravity for the study of consumer motivation in this research project.

Next, model analogies were drawn between a physical (electro-magnetic) system and a social (consumer) system to contrast the functional similarities which exist between the two diverse systems. By analyzing the operational processes of the electro-magnetic system and applying these strategies to the flow of energy throughout the consumer system, the entrepreneur is provided with a frame of reference for analyzing the efficiency (value added) of his marketing operations. This model further demonstrated that three essential factors should be considered if predictability of consumer purchasing behavior is to be achieved. These factors are an inherent part of the consumer's perceptual processes and are directly affected by the marketing environment (conductor). That is, the desire (voltage) of the individual to purchase the product and the cost (resistance) of the product serve as countervailing forces in the purchase decision. Also, the consumer's attitudes (which operate like the domains of a magnet) are seen as the crucial directional indicators of the specific product (given desire force overcomes cost resistance) the person will purchase. The entire marketing environment generally affects how an individual perceives a given product's characteristics contribute to his goal of self enhancement.

Finally, the investigative itinerary of the factors affecting the flow and direction of consumer energy in the market system necessitated that primary research be initiated to develop efficient procedures for identifying opinion leaders. The success of this endeavor was

thought to significantly increase the flow of intelligence on consumer motivation.

A survey was administered to 360 active sorority members on the campus of Louisiana State University to determine the feasibility of utilizing a single questionnaire procedure to successfully differentiate between cosmetic opinion leaders and influencees. Analysis of variance of the questionnaire items indicated eight questions showed a significant difference in the way opinion leaders and influencees responded to the questions. These significant variables were next calculated into a multiple discriminant function to segregate opinion leader types from influencee type respondents. The results of the analysis correctly classified 84.6 per cent of the opinion leaders and 88.6 per cent of the influencees. Thus, the primary research completes this systems approach to consumer motivation.

CHAPTER I

INTRODUCTION TO THE CONSUMER MOTIVATION STUDY

Consumer motivation [activity involving the expenditure of consumer energy (capital and labor) in the market system] is the propelling force behind the mass production, mass distribution and mass consumption wheel of our economy. Seen in this perspective, marketing represents the hub upon which the total economy rotates with its momentum directly related to the level of consumer motivation. The importance of consumer motivation is further emphasized when one is reminded of the continuous need for clearer and more accurate answers to how and why consumers behave as they do in the market place.

Adam Smith, a political economist of the Eighteenth Century, asserted, "Consumption is the sole and end purpose of all production."¹ This time-honored truism can be seen in the contemporary slogan of Pillsbury Company executives who observe, "Nothing happens at Pillsbury until a sale is made."² It is apparent that unless consumers can be persuaded to freely expend their productive energies in the market

¹Adam Smith, The Wealth of Nations (London: Methuen and Company, Ltd., 1904), Vol. II, Book IV.

²Robert J. Keith, "The Marketing Revolution," Marketing in Progress, Edited by Hiram C. Barksdale (New York: Holt Rinehart and Winston, Inc., 1964), p. 47.

system, the economic wheel of prosperity is subjected to the increased gravity of a stationary position.

Behavioral scientists have long sought to unravel the manifold complexities of consumer motivation. Such meaningful endeavors have led motivation researchers to strike out in many diverse directions. However, it is becoming increasingly clear that collective procedures must be found to reduce the mountainous volume of data created by a diversity of research techniques so as to make intelligence on consumer motivation more readily accessible to marketing decision makers. Conceivable, a stand-off now exists among motivationalists, for none have demonstrated the ability to lay the cornerstone to a unified approach to this subject.

It is submitted that a prudent method for developing such a consolidated medium would be a systems approach to the study of consumer motivation. If this systems approach were available for analyzing this body of knowledge, it would be applicable to probing the research trammels which obstruct the free flow of intelligence within a closed-loop (input-output) perspective of consumer motivation in the market system.

Research Scope and Statement of the Problem

Because of the current hydra-headed status of consumer motivation research, the general area presents a major challenge for the marketing strategist to overcome in attempting to use its premises effectively in the market place.

The medium of systems theory was chosen because it has demonstrated the potential of becoming one of the most fruitful approaches to a

thorough study of most fields of inquiry. However, two of the central obstacles in presenting such an integrated approach to consumer motivation concern the nebulous connotations environing many contemporary social concepts and the perennial need for primary research of social enigmas as they take priority in man's search for meaning in his environment.

Therefore, one of the inherent features of this systems approach to consumer motivation was an attempt to provide greater clarity of social concepts through the medium of analogy. That is, the operational similarities which exist between physical and social systems were analogized by drawing upon the more established premises of the physical sciences and applying them to social phenomena. The success of such a procedure should provide greater clarity and concreteness to the social complexities under investigation.

Credence to this idea is provided by Kenneth Boulding who has stated, "System theory furnishes the framework or skeleton for all science. Through systems theory, it is possible to observe the similarities in theoretical constructs of both physical and life sciences."³ This coalescence of physical and organic systems has progressed so far that many students in both disciplines now suspect that there is no fundamental difference between them--that ultimately all aspects of the structure and behavior of organic systems will be explainable in terms of the underlying laws and principles of physical science.⁴ It may be

³Daniel Katz and Robert L. Kahn, The Social Psychology of Organizations (New York: John Wiley and Sons, Inc., 1964), p. 47.

⁴Dean E. Wooldridge, The Machinery of Life (New York: McGraw-Hill Book Company, 1966), p. 7.

further observed that social systems in their basic drive for survival have adopted, through necessity, the fundamental structure and behavior patterns of organic systems in securing an ecological niche within their environment.

Secondly, this systems approach featured primary research concerning a social complexity thought to have top priority in pressing back the boundaries of knowledge concerning consumer motivation. This primary research involved the development of an efficient procedure for identifying marketing opinion leaders. These influentials are considered dynamic mediums of communication in amplifying marketing influence in society. Therefore, methods for efficiently identifying these influentials in the whole of society represent top priority in research endeavors for furthering the efficiency of consumer motivation.

The purpose of this research project was to present a systems approach to consumer motivation with emphasis on procedures for identifying opinion leaders. The study was designed to provide a unified interdisciplinary approach to consumer motivation. Because of the omnibus nature of the available research on consumer motivation, it was intended that this research project present the skeleton for a frame of reference which could be useful in developing a systematic, closed-loop (input-output) approach to this topic. The perspective used in this study concentrated on what the researcher believed to be the most relevant concepts to a clearer understanding of consumer motivation.

Since consumer motivation is a key area to all successful marketing ventures, it should remain a vital area for research for many years to come. It is anticipated this research project will bring motivationalists a step closer to a unified theoretical approach to consumer

motivation in the market system. Closely akin to the scope of the project is the methodology used to develop the text of this study.

Methodology of the Consumer Motivation Research

The methodology of an analysis is concerned with the manner in which meaningful information is extracted from the body of knowledge under consideration. Certain strategies are followed in the performance of the analysis according to the particular ideas concerning the ways in which the information is to be developed. Methodology thus consists of strategies, data, and the plan of analysis. This section describes the methodology of the present study.

Strategy of a Systems Approach

In developing a strategy of analysis, it was determined to explore the operation of consumer motivation through the integrated medium of a systems approach. Perhaps at the root of systems theory is the concept that all known phenomena to man have evolved from particles and a central core of natural laws. The complexity of contemporary systems has developed through the evolutionary process of building on the foundations of past systems. This happenstance has sprung from matter's eternal struggle to achieve and maintain a position in the environment. Such an idea suggests that all truths may be basically simple in principle, but the procedures for deriving them are infinitely complicated.

Nature bears evidence that a hierarchy of systems exists, for instance, the atom, molecules, earth, solar systems and the universe. Similarly, a hierarchy of consumer systems exists, i.e., the individual,

family, metropolitan area, regional and national markets.⁵ Thus, to derive the essential elements of a given system, each subsystem (in this case the consumer) must be abstracted back to the point where all subsystems have at least one common denominator (element).

This procedure for abstracting consumer systems can be illustrated by the following steps. First, the major postulate is:

The natural sciences provide the fundamental principles and laws upon which all social systems operate. Through the medium of systems theory, the operational similarities of physical and social systems can be examined. Such an analytical medium improves the effectiveness of ordering and developing further knowledge on consumer motivation as well as establishing a closed-loop (input-output) itinerary of investigation.

This postulate has four implications about theoretical consumer motivation systems which were stated as subpostulates:

1. All productive systems (natural and social) are input-output systems.
2. The lowest common denominators in these systems are energy and mass.
3. The universal environment for motivation is found in Le Chatelier's principle which states:

If a stress, any change in one of the variables that determines the state of a system in equilibrium, is applied to a system in equilibrium, the equilibrium is shifted in a way that tends to undo the effect of the stress.⁶

4. Motivation is epitomized by the transformation of energy.

Thus, it was upon these postulates that a systems approach to consumer motivation was based.

⁵Martin L. Bell, Marketing Concepts and Strategy (New York: Houghton Mifflin Company, 1966), p. 59.

⁶Walter J. Moore, Physical Chemistry (Englewood Cliffs: Prentice-Hall, Inc., 1963), p. 177.

By using energy as the trace element to be followed through the processes of a hierarchy of consumer systems, one can readily see the closed-loop status of this investigation cannot be achieved until both the productive and consumption activities of the consumer are analyzed in this conceptual scheme. Since, to a large degree, a consumer gains status in western cultures through his consumption power in society, the consumer's productivity represents a vital activity which should not be overlooked in a systematic analysis of consumer motivation.

Therefore, once the flow of energy (capital and labor) can be identified as being expended by the consumer in the market system, energy should be analyzed to determine those factors which affect its flow and the direction it takes in the market place. In this research, these factors were studied under two broad classifications--the psychological (intra) and sociological (extra) forces which influence the flow and direction of consumer energies (capital and labor) within the market system.

For example, behavioral scientists have long claimed that the psychological influence of the needs hierarchy is a prime catalyst in affecting the flow of productive human energy.⁷ In addition, once the consumer has acquired a reserve of consumption energy (capital), the direction which energy takes in the market place is thought to be directly influenced (given that the basic needs have been satisfied) by reference groups and opinion leaders.

⁷A. H. Maslow, Motivation and Personality (New York: Harper and Brothers, Publishers, 1954), pp. 80-92. Maslow states man's hierarchy of needs are: (1) physiological, (2) safety, (3) love, (4) esteem, (5) self-actualization.

In sum, by tracing the stream of consumer energy (capital and labor) within the market system and analyzing the psychological and sociological factors which affect its flow and direction, a clearer concept of the operation of consumer motivation is thought to be achieved.

Data and Hypothesis of the Opinion Leadership Survey

Aside from the presentation of new concepts and a rigorous review of secondary research, it was necessary to develop a primary research survey to more fully understand the directional influence of opinion leaders on consumer purchasing (energy expenditure) behavior in the market place. This survey procedure was designed to improve on the burdensome methods presently utilized in identifying marketing opinion leaders.⁸ A more direct identification method has the advantage of decreasing the physical and financial limitations of contemporary methods.⁹

Therefore, in order to improve on the available procedures for identifying opinion leaders, the following hypothesis was proposed:

A single self-designating questionnaire survey can be designed and evaluated to differentiate between opinion leaders and influencees concerning a given product area.

⁸Contemporary methods for identifying opinion leaders require that one questionnaire blanket the universe to determine the opinion leaders with a follow-up questionnaire to develop further information on the influencer. Such a procedure is burdened by the high cost and physical limitations of survey administration.

⁹The point of departure for developing procedures for identifying marketing opinion leaders was the previous research available on two-step communication (see Chapter IV).

The responses to the questionnaire can be analyzed by means of a computer so that self identification of opinion leadership will become both a practical and efficient marketing strategy. Such a procedure has the advantage of drastically reducing the time and cost involved in identifying opinion leaders concerning a given product area. The result would be a significant increase in the flow of intelligence on opinion leaders as well as providing firms with an efficient and economical sounding board for testing the merits of their product design and promotion campaign.

The universe tested in this survey was the active members of eight sororities on the campus of Louisiana State University concerning opinion leaders on the subject of cosmetics. The project required that a primary survey be administered to six sororities representing 248 active members. An 88 per cent response was gained with 218 usable questionnaires being returned. Next, a secondary survey was administered to two sororities to check the results of the first survey. From a total of 155 active members, 142 usable questionnaires were returned giving the secondary survey a 91 per cent response. Both surveys were administered during the spring semester of 1968.

This questionnaire survey was designed to accomplish the one major objective and four minor objectives indicated as follows:

To test the validity of using one questionnaire survey procedure to discriminate between opinion leader-type and influencee-type respondents.

- a) To determine the personal characteristics of the typical cosmetic opinion leader as perceived by members of the sorority universe tested.

- b) To evaluate the merit of using a constant interval attitude continuum in determining whether influencees and opinion leaders as separate groups vary in the strength of their attitudes toward the product area of cosmetics and related activities.
- c) To determine the value of using self-designating cosmetic leadership experience questions as a check and balance to the attitude questions in analyzing the expected role behavior (influencee or influential) of the respondent.
- d) To evaluate the relationship between the opinion leader's sphere of influence and her popularity vote from the sorority as a cosmetic influential. Also, to determine if there is a relationship between the number of organizations and/or offices an opinion leader has been associated with and the votes she received as a cosmetic influential.

These data were collected according to generally accepted practices of marketing research, and, therefore, were thought to be sufficiently accurate for the purpose of the present research.

Plan for Analyzing the Opinion Leadership Survey

The general plan of analysis for developing the questionnaire procedure for opinion leaders in this study involved three distinct areas. First, to determine who the cosmetic opinion leaders were in the sorority system. Second, to probe the reasons why the members of the patron group had confidence in these influentials' cosmetic opinions. Third, to test the validity of using one questionnaire to

discriminate between influentials and influencees concerning a given product area.

The questionnaire design consequently involved two parts. Part One requested the full name of the respondent and the full name of an active sorority sister whom the respondent would turn to for advice on her personal cosmetics. This information was followed by questions to determine the personal profile of the typical sorority cosmetic opinion leader as perceived by all the respondents.

Part Two was designed as a self-contained unit to be evaluated for its success in differentiating influentials from the tested universe and contrasting these individuals with the opinion leaders enumerated in the first part. If the names of the opinion leader types derived from the analysis of the second part coincide to a high degree with the influentials enumerated in the first part, it was suggestive that a single questionnaire survey design was capable of discerning opinion leaders from influencees.

This section utilized a Likert attitude scaling technique to evaluate the strengths of the respondents' attitudes toward a given phase of cosmetic activity. Also, self-designating leadership questions were asked to determine if, in fact, the respondents had given advice recently on the subject of cosmetics. Other questions were designed to determine the respondents' spheres of influence and social activity. Perhaps, there would be some suggestion that a given phase of the influentials' spheres of influence would be different from the advice seekers'.

Briefly, the methods used to test the hypothesis of this survey design involved the use of analysis of variance to determine what

questions indicated a significant difference in the way influentials and influencees answered them. Next, those questions that showed a sufficient level of significance were incorporated into a multiple discriminant function to segregate opinion leader types from influencee types.

Thus, all the respondents were subjected to the same questions in this opinion leadership survey. For this reason, the parameters of this universe were confined to sorority members on the campus of Louisiana State University, thus, constituting certain inherent limitations in the study.

The Limitations of the Systems Approach and Primary Research

Particular emphasis in this project was placed on the usefulness of analogizing the functional similarities of physical and organic systems with social systems. The investigative value of this framework to specific marketing strategy requires the development of some original concepts in further refining a systems approach to the topic at hand. Also, an interdisciplinary review and analysis of existing secondary research was necessary as well as the presentation of primary research to complete the closed-loop status of this research. Thus, this research project proceeded by abstracting each consumer to be represented by his lowest common denominators--energy and mass in the total economy. Once motivation of the consumer was identified as the transformation of energy, it served as a trace element to be followed through his productive activities and ultimately into the

market place where both the flow and direction of the consumer's energy could be analyzed in circuitry fashion. Perhaps the most notable weakness to this methodology is an occasional tendency to state speculative supposition as acknowledged principles of behavior. However, since the purpose of this analogical technique was fostered on the belief that the nebulous concepts in social sciences must be improved and made more meaningful, there are few concepts in this text that accepted research in the behavioral sciences has not supported in part or in whole.

One area which required primary research emphasis in completing a systematic approach to consumer motivation was procedures for identifying marketing opinion leaders. However, the universe (Louisiana State University sorority members) selected for primary research into opinion leadership was not representative of the general population. Previous two-step communication research has established that opinion leaders are represented in all strata of society.¹⁰ It, therefore, seemed desirable to develop a general predictive survey procedure which may only be applicable to a particular class of the universe, for each segment of the consumer market requires some particular attention under each unique situation. Thus, this biased universe was de-emphasized in view of the study's primary objective to determine whether a single questionnaire survey could successfully determine opinion leaders from influencees concerning a given product area

¹⁰Elihu Katz, "The Two-Step Flow of Communication: An Up-to-Date Report of an Hypothesis," Marketing Models: Quantitative and Behavioral, Edited by Ralph L. Day (Scranton, Pennsylvania: International Textbook Company, 1964), p. 98.

(cosmetics). There were significant advantages in utilizing this particular universe for developing improved procedures for identifying opinion leaders. Previous studies in this area have stressed the importance of identifying cultural subgroups bonded by common interests such as occupation and/or social activities.¹¹ The universe should also exemplify established communication links, a minimum of outside interference in the activities under examination, well-defined parameters and hopefully a high response group. The sorority system, an obvious social institution on most collegiate campuses, incorporated all these advantages plus the asset of accessibility for post-questionnaire follow-up interviews.

Of course, inherent in this questionnaire design were the limitations that are frequently attributed to subjective, opinion-type surveys. However, it is contemplated that the lack of precise answers can be compensated for in part by the relative nature of the survey. That is, with all the questionnaires concerning the same topics and respondents, some basis for deriving discriminating information can be expected on the average from such a large sample.

The primary survey of six sororities was followed by a secondary survey of two sororities to substantiate the validity of the technique. There is no doubt that the results of this preliminary survey can be improved upon with further experience and experiments with this opinion leader survey technique. Information gathered from a larger, more dynamic universe, such as an entire metropolitan area, should certainly

¹¹Ibid., pp. 100-117.

prove an adequate test for determining just how efficient this technique is in identifying opinion leaders.

However, despite these limitations, the immediate research should prove to be a step forward in establishing a systematic frame of reference to the study of consumer motivation. Congruent with the importance of developing the methodology for a systems approach to consumer motivation is the need for a clearer understanding of the subject area in general. The next section delves into the mainsprings of social evolution in an effort to provide a more thorough understanding of human motivation involving both productive and consumption activities.

A Review of the Mainsprings of Social Evolution

The methodology used in developing any field of inquiry can usually be improved by a more profound understanding of the origins of the subject matter.

It is posited that the mainsprings of social evolution are inextricably tied to the primary and secondary motives of man. Perhaps, the basic motive in life can be more readily recognized by visualizing the continuum of evolution beginning with life's simplest form, whose molecular structure followed by instinct and the complex sensory mechanisms of intelligent primates combine to make the drive for survival an irrepressible force. In essence, the law of self preservation is the first law of nature.¹²

¹²James L. Latham, Human Relations in Business (Ohio: Charles E. Merrill Books, Inc., 1964), p. 9.

Closely akin to the drive for survival, man finds that he is biologically at the mercy of his environment when alone and without tools; he must adapt or die. However, through the hereditary development of the human hand and cerebral cortex, combined with man's functional gravitation toward social solidarity, he has found the means to adapt as well as to potentially control his environment.

Thus, man's secondary motive arises in his drive for group acceptance in a synergistic effort to control his environment. This secondary motive might be identified as man's need for security in finding an ecological niche in the social scale of his patron group. Generally, a given individual's social rank is determined to a large extent by what society perceives to be the individual's contribution to the accomplishment of its goals. Since a given individual's contributions are extremely difficult to evaluate relatively, social status is often equated with the financial rewards of his labor, i.e., his consumption power in the market place.¹³

Inasmuch as motives have normally been classified as an expression of a person's needs,¹⁴ it would follow that primary needs are responsible for motives in the direction of such incentives as food, water and shelter. Secondary needs are socially derived and include such factors as desire for social acceptance, status, achievement, and personal recognition. Therefore, needs are conditioned by the total environment. They result in a set of goals or wants the consumer

¹³Richard H. Leftwich, The Price System and Resource Allocation (New York: Holt, Rinehart and Winston, 1961), p. 3.

¹⁴Keith Davis, Human Relations at Work (New York: McGraw-Hill Book Co., 1962), p. 21.

wishes to satisfy and ultimately manifest his attitude (a tendency to act or react in a certain manner) toward the social environment. It may be plausible, therefore, to deduce that the attitudes a consumer brings to the market place are highly important indicators of his motivational potential.

Thus, the above proposition assumes man faces two distinct situations: the physical and social environment. It is proposed the predominance of the primary and secondary motives underlie all human behavior and are direct paths to the goal of self enhancement. A threatening force to his survival or security from either of these environments will mobilize energies of the entire organism in an active effort to restore the balance of the previous state.¹⁵ The result of these inner states of tension are thought of as motivation which represents the transformation of energy toward the goal satisfaction of the individual.

Motivation becomes a vital concept when one is cognizant that life represents a process of absorbing, storing, and transmitting energy toward survival goals.¹⁶ Perhaps the surest way to maximize success in controlling a life sustaining supply of energy is to recognize the power of increased efficiency. Scientists have observed the conservation of energy is a prime goal of nature,¹⁷ for energy is the substance of life, and naturally seeks the path of least resistance.¹⁸

¹⁵James L. Latham, op. cit., p. 142.

¹⁶Daniel Katz and Robert L. Kahn, op. cit., p. 17.

¹⁷Mason Haire (ed.), Organization Theory in Industrial Practice (New York: John Wiley and Sons, Inc., 1962), p. 33.

¹⁸This premise is supported in Physics by Hamilton's Principle in Mechanics and Fermat's Principle in Optics.

Since man has always lived amidst forces that could easily overwhelm him, social evolution came about through synergistic effort as man realized such a cooperative venture would more efficiently enable him to accomplish his survival goals. The invention of tools advanced the division of labor which led to the accelerated growth of social systems. Thus, cultural development commencing in prehistoric times substituted for biological evolution as a means of adapting man to new habitates in a widening range of organizations that encompass the whole earth.¹⁹

Perhaps unique to man's ability to partially control his environment through knowledge is the sweeping technological impact it exerts on all human culture. It is conceivable man has created a motivational climate through his technological advancements far more acute than that now experienced from his physical environment. Innovations from the wheel to atomic energy exemplify the accelerating pace of scientific and technological progress which has created new conditions for all society. It is expected that the proliferation of cultural progress will exert equal force behind the eternal fountainhead of want creation. However, a clearer understanding of consumer motivation is essential if increased value from want satisfaction is to be derived from the market place by the consumer and entrepreneur.

Essentially, a philosophical treatise requires a relatively high degree of abstraction to initiate ideas in a realm not yet finitely explored. In an attempt to provide a common ground for understanding,

¹⁹James L. Latham, op. cit., p. 17.

the definitions of the essential terms in this research project are provided in the following section.

Definition of Terms in the Consumer Motivation Study

In the course of the investigation, several terms assume important meaning to the research. They are as follows:

Attitudes: The common element of most definitions of attitudes is that they exemplify a readiness or tendency of individuals to act or react in a certain manner.²⁰ Communication stimuli permeate through the mind's filter acted upon by bias, preconceived convictions, feelings and emotions, hopes and fears, all of which are combined to formulate attitudes. Thus, attitudes may be thought of as emotionally colored points of view, characteristic of an individual's tendency to behave in a certain way because of the particular attitudes he holds.²¹

Consumer Motivation: Consumer motivation is behavior that is instigated by needs within the individual and is directed toward goals that can satisfy these needs. It is a label for three functions: sensitizing of a receiver to certain stimuli which increases the chance that he will receive a message; the triggering of action of some sort; and the selection of action appropriate to a specific goal.²² Therefore, consumer motivation is epitomized by the transformation of energy within the consumer system.

²⁰Charles A. Myers and Paul Pigors, Personnel Administration (New York: McGraw-Hill Book Company, 1961), p. 222.

²¹Philip L. Harriman, Dictionary of Psychology (New York: The Philosophical Library, Inc., 1947), p. 37.

²²Edgar Crane, Marketing Communications (New York: John Wiley and Sons, Inc., 1965), p. 421.

Ecology: Ecology is the study of an organism in relation to its environment. The organism and its environment alike are recognized as highly dynamic. Moreover, organisms and environmental conditions exist in almost infinite variety. Existence is viewed as a synthesis of organism and environment. The fundamental relationships of this synthesis are best grasped at a theoretical or conceptual level.²³

Energy and Matter: Energy and matter are two fundamental ideas in physics. Energy, the name given to the ability to do work, and matter, the substance of the object, form the two lowest common denominators of all productive systems. It is believed that energy and matter are merely two aspects of the same thing. A system loses part of its mass when it releases energy and gains mass when it absorbs energy.

Energy is classified as potential energy (energy of position) or kinetic energy (energy of movement). The flux of the universe is perpetuated by energy constantly changing from a potential to a kinetic state and then back again. For the purposes of this research project, it is useful to classify human energy into a tri-form of energy types. One type is termed "ionic" energy which is associated with one's inherent mental potential (I.Q.). The second type is classified as "polar" energy, associated with the gregarious nature of the individual. Lastly, "mechanical" energy is closely associated with innate and learned motor (muscular) responses of the individual.

²³ Martin L. Bell, op. cit., p. 64.

Goals: Goals are the target objectives which individuals aspire to satisfy.²⁴ The dominant goals of Homo sapiens are survival within their physical environment and security within their social environment.

Homeostasis: In systems theory, dynamic homeostasis or maintenance of equilibrium is achieved by constant adjustment and anticipation. Dynamic homeostasis is not motionless or a true equilibrium. There is a continuous inflow of energy from the external environment and a continuous export of the products of the system, but the character of the system, the ratio of the energy exchanged and the relations between parts, remains the same. The unique nature of energy transformation and maintenance activity preserves a steady state so that the system from time to time is not the identical system it was but a highly similar system. The basic principle of homeostasis is the preservation of the character of the system.²⁵

Market Place: The market place is defined to be the place in which firms and consumers meet for the purpose of attaining their respective objectives through exchange. Because individuals have different characteristics which determine shopping behavior, their shopping behavior patterns vary. That is, they seek economic want satisfaction in different ways. Firms also vary, since they attempt to satisfy the various consumer wants. Consequently, the market is said to be heterogeneous.²⁶

²⁴Philip L. Harriman, op. cit., p. 151.

²⁵Daniel Katz and Robert L. Kahn, op. cit., p. 24.

²⁶Paul D. Converse, et. al., Elements of Marketing (New Jersey: Prentice-Hall, Inc., 1965), p. 6.

Market System: A market system is one in which the basic economic questions are decided, not by some central authority, but by producers and consumers acting in markets in response to prices. The essence of the system is that goods are produced for exchange and exchanges are money transactions. All inputs and all outputs have prices that are set in markets by the actions of a host of competitors, each seeking his own advantage.

Households spend incomes to purchase the goods and services that they most desire from the business that produces them. Conversely, households sell their labor and the services of the capital and natural resources that they own in return for income. Businesses buy resources from households and sell products and services to each other and to households in the expectation that revenue from sales will cover the costs of production and that some profit will remain.²⁷

Needs: Needs is a term used in a wide sense to connote a condition of unsatisfied motives. In general, a need is anything which upsets the optimum equilibrium.²⁸

Motives: Motives are stimuli to action; usually restricted to a more or less well-verbalized drive to behavior. A motive is not an observable entity, but an influence or hypothetical construct to account for behavior.²⁹

²⁷Robert H. Haveman and Kenyon A. Knopf, The Market System (New York: John Wiley and Sons, Inc., 1966), p. 12.

²⁸Philip L. Harriman, op. cit., p. 232.

²⁹Ibid., p. 226.

Social Physics: Social physics coincides well with this research project's approach to consumer motivation theory. Its objective is to discover uniformities in physical science which can be expressed through analogies and/or mathematics to correspond with known patterns in social sciences.³⁰

Synergy: Synergy is defined as the sum total of the energy which a group can command. That part of the energy which is used up to keep the group in being is maintenance synergy and that part which is used to carry out the objectives of the group is effective synergy.³¹

Systems Concepts: A system is an assembly of interdependent parts (subsystems) whose interaction is vital to its survival and maintenance of character. (Interdependence means that a change in one part affects the other parts and thus the whole system.)³² Systems can be categorized into three types: the closed system in which mass is fixed but in which energy may be varied; an isolated system which neither mass nor energy can vary; and the open system in which mass and energy can be varied.

Systems Theory: Systems theory is concerned with developing a systematic, theoretical framework for describing general relationships of the empirical world. A broad spectrum of potential achievements for such a framework does exist because similarities in the theoretical construction of various disciplines can be pointed out. Models can be

³⁰George Schwartz, Development of Marketing Theory (Chicago: South-Western Publishing Co., 1963), p. 37.

³¹Daniel Katz and Robert L. Kahn, op. cit., p. 33.

³²Richard A. Johnson, et. al., The Theory and Management of Systems (New York: McGraw-Hill Book Co., 1963), p. 4.

developed which have applicability to many of these fields of study. An important reason for using systems theory is the problem of communication between diverse subject areas when using an interdisciplinary approach.³³ Systems theory provides an important medium for developing and understanding the functional similarities that underlie the operation of all productive systems.

Instrumental to a clearer understanding of the format of this report is a section devoted to explaining the paramount features of the following chapters.

Preview to the Systems Approach to Consumer Motivation

In view of the need to pre-examine the research course taken in this project, Chapter II presents the conceptual framework for the paper. The need for a systems approach to consumer motivation is explained and the postulates necessary for its development are presented. The central investigative theme is based on the hypothetical concept that essentially all consumers represent energy and mass in the market system. By tracing the flow and direction of the consumer's energies (capital and labor) in the economy, the closed-loop status of a systems approach to consumer motivation is achieved. Next, a system's analogy is provided to illustrate the functional similarities of a mechanical (electro-magnetic) system and a consumer motivation system. From this analysis it is submitted that a clearer understanding of the operation of consumer motivation in the market system will be provided.

³³Kenneth E. Boulding, "General Systems Theory--The Skeleton of Science," Theories for Marketing Systems Analysis, Edited by George Fisk and Donald F. Dixon (New York: Harper and Row, 1967), p. 5.

Chapter III presents the psychodynamics of consumer motivation in an effort to elucidate those psychological and environmental factors that stimulate the flow of consumer energy resulting from the individual's productive endeavors. Ultimately, this energy is directed into the market place by the consumption activities of the individual. It is attempted in this section to provide a frame of reference to facilitate comprehension of the various psychological forces which influence consumer purchasing behavior. The chapter begins with the micro aspects of consumer motivation represented in the most integrated thought on individual purchasing behavior available--the self concept. The text progresses to the macro environment to illustrate the influence of the total environment on the consumer's activities in the market system.

Chapter IV analyzes the directional influence exerted on the consumer's energies in the market system. This analytical scheme involves two important entities--the reference group and the marketing opinion leader. Both of these marketing constituents were thought to influence significantly the course which consumer energy (capital and labor) takes in the market system. Of prime concern is the task of identifying these marketing opinion leaders, who were deemed to have significant influence over numerous consumer influencees concerning their purchasing behavior. After rigorous secondary research to provide a thorough and accurate descriptive profile of opinion leaders, a survey procedure was advanced to improve on the contemporary procedures for identifying marketing influentials. The results of the survey were evaluated to determine its potential in accurately identifying these tastemakers, its advantages over contemporary survey procedures and the ramifications

that could be drawn from its immediate results. The research conclusions are summarized in Chapter V.

CHAPTER II

SYSTEMS THEORY AS A STRATEGIC MEDIUM FOR
STUDYING CONSUMER MOTIVATION

This chapter elucidates the trend toward synthesis thinking which has resulted in the systems theory approach to subjects of a comprehensive and/or interdisciplinary nature.

Systems theory provides the consumer motivation researcher with an efficient medium for drawing information from many disciplines into an organized body of knowledge. This concept is readily seen by the fact that the system is defined as, "an assemblage of objects united by some form of regular interaction or interdependence."¹ There are three types of systems, open, isolated and closed, found in the physical world. The functions of the open system must closely resemble those of the consumer (social) system because both demonstrate a productive cycle involving input, throughput, and output functions. Such productive systems are designed to accomplish a particular objective according to plan.² In the case of consumer systems which represents a hierarchy of structure from the individual, family,

¹Lee Adler, "Systems Approach to Marketing: Managerial and Philosophical," Harvard Business Review, Vol. 45 (May, 1967), p. 105.

²Richard A. Johnson, et. al., op. cit., p. 91.

neighborhood, society and culture, the objective³ is usually considered a continuous endeavor toward higher standards of living.

All such productive (goal-orientated) systems are the same whether physical, organic, or social in nature: they are input-output systems. By reducing all systems which fit this criteria to their lowest common denominators (energy and mass), it is possible to observe the "functional" similarities which are known to exist between these diverse cosmoses.⁴ Once this has been achieved, a basis for comparison is manifested by which the operational strategies of a sophisticated system can be applied to a less developed system. Such a procedure would bridge the technology gap in providing further knowledge for increasing the efficiency of the latter system in achieving its objectives. In addition, once the necessary information is abstracted from the various disciplines, a systems approach provides a closed-loop procedure for organizing and analyzing the data.

Therefore, a systems approach will be used to provide a clearer understanding of the process of motivation in consumer systems. The medium of analogy will be used to draw upon the operational efficiencies of electro-magnetic (physical) systems and apply these strategies to consumer (social) systems to obtain greater clarity of the essential processes for efficient motivation in consumer systems.

³Objectives define the conditions to be achieved year after year.

⁴This is true by reason of the fact that if any kind of output is to be produced by these systems, some form of energy must be expended. Therefore, energy is common to all these systems, and by observing its movement through these diverse systems one can conceptualize the functional similarities which exist between these cosmoses.

The Dynamic Synthesis Perspective of Systems Theory

There is reason to expect that the complexities of consumer motivation can be explained through the careful analysis of the evidence surrounding our physical existence. Basic to such a task is cognizance of a universe in a dynamic state of flux; matter constantly in motion, necessitates that change be a recognized factor in the accumulation of knowledge on human motivation. With advancing technology, society will undergo dramatic changes in the future. A thorough understanding of this increasingly complex environment will require a filtering process of pertinent information from all relevant disciplines. Thus, the dynamic synthesis perspective suggests to the researcher a need to focus attention on the premise of ceaseless change and the integrated whole of an interdisciplinary approach.

Evidence is fast accumulating which emphasizes that mankind is in a transitional era of from what might be called the "age of anatomy" to the "age of synthesis." The trend of academic thought today tends to be altering its course from anatomical, a penchant of looking at an operation in terms of its parts, to wholeness thinking, an overview emphasizing an identity separate from and greater than its parts.⁵

The advent of the Industrial Revolution manifesting a dramatic proliferation in knowledge has brought on the period when man must find more accurate and penetrating ways of analyzing the wholeness of an operation. This idea is not new; James Conant, former President of

⁵"Age of Synthesis," (The Editors), Harvard Business Review, Vol. 40 (September-October 1962), p. 36.

Harvard University, observed that, "Men of accute perspection must interpret the evidences of the real world within some conceptual scheme."⁶

Systems theory, which provides a dynamic synthesis perspective for organizing the bewildering interrelations of a subject's internal and external environmental complexities has the potential of becoming this conceptual scheme. This concept involving "the wholeness of an operation" necessitates systems theory remain open-ended in its attraction for laws, principles and central theories which effectively examine the phenomenon at hand. The development of this conceptual scheme should open new frontiers in motivational knowledge and suggest additional avenues for observation and experiment.

This trend toward synthesis thinking emphasizes the need to cope with problems which have developed from overemphasis on functional orientation.⁷ Examples of such problems are: over specialization or empire building, lack of coordination between related areas, specialists working at cross purpose, and finally, the general resistance to communication across area boundaries.

Kenneth Boulding, the famous contemporary writer and economist, has recognized the dangers of carrying anatomical thinking too far in a quote from his work on general systems theory:

The crisis of science today arises because of the increasing difficulty of such profitable talk among scientists as a whole. Specialization has outrun trade, communication between the disciplines becomes increasingly difficult, and the

⁶Ibid.

⁷Kenneth E. Boulding, "General Systems Theory--The Skeleton of Science," loc. cit.

republic of learning is breaking up into isolated subcultures with only tenuous lines of communication between them The reason for this break up in the body of knowledge is that in the course of specialization the receptors of information themselves become specialized. Hence, physicists only talk to physicists, economists to economists--worse still, nuclear physicists only talk to nuclear physicists and econometricians to econometricians. One wonders sometimes if science will not grind to a stop in an assemblage of walled-in hermits, each mumbling to himself words in a private language that only he can understand.⁸

Perhaps these scholarly sanctuaries are erected in part as a defense mechanism. By obscuring the mysteries of a given discipline, its premises are superficially exalted into higher strata of intellectualism. The continued cultivation of this form of specialized deafness will certainly affect the free flow of information between disciplines. Systems theory demonstrates the potential of providing specialized ears with a medium for becoming generalized ears in abstracting pertinent information from the ever increasing stockpile of knowledge.

In sum, conceptual schemes such as systems theory must be proven in practice; ways must be found to disseminate efficiently the awesome volume of technological information which is proliferating at accelerated rates in modern societies. The ultimate objective is to make intelligence more readily accessible to decision makers who must draw upon the knowledge of many disciplines in the routine of their productive activity.

⁸Ibid.

Systems Theory and Its Relevance to
Interdisciplinary Study

It has been established that a thorough study of consumer motivation will require an interdisciplinary approach. An effective plan for analyzing this subject should provide a theory (frame of reference) by which decision makers can readily draw pertinent data from many disciplines. Such a procedure should allow the fact finder to get to the essence of the problem at a minimum of cost in time and resources.

Such a theory (frame of reference) furnished by this systems approach is a conjectural explanation based on tests of an hypothesis from which some supporting evidence has been obtained.⁹ Every sound business and social policy rests on an effective theory of action. It would follow that a good decision maker is a good theorist, implicitly or explicitly. This individual can explain and even predict behavior under more widely divergent circumstances than can an individual whose perspective is limited by "practical" personal experience.¹⁰ Thus, the interdisciplinary generalizing and integrating potential of systems theory provides a coherent, unified perspective for decision making.¹¹ This idea is supported systematically in the following paragraphs.

To begin, Webster's definition of systems as "an assemblage of objects united by some form of regular interaction or interdependence,"

⁹George Fisk, Marketing Systems: An Introductory Analysis (New York: Harper and Row Publishers, 1967), p. 19.

¹⁰Ibid., p. 18.

¹¹Walter Buckley, Sociology and Modern Systems Theory (New Jersey: Prentice-Hall, Inc., 1967), p. 2.

implies a dual meaning. First, there are those non-directive systems which are advanced as a useful classification scheme for the purpose of organizing related phenomena into an orderly arrangement. This is a feasible plan since orderliness, not chaos, characterizes the universe. It would follow that in a broad spectrum, everything known to man could, therefore, be arranged in one system or another. An example of an hierarchy of systems representing the structure of the universe may be: the atoms, molecules, planets, solar systems, and galaxies.

Second, there are directive systems which are organized to accomplish a particular objective according to plan. Three significant points are noted in the definition of these production orientated systems. One, there must be a purpose or objective which the system is designed to perform. Two, there must be a design or an established arrangement of the system's components. Three, the inputs must be allocated in the system according to a plan. An example of directive (production orientated) social systems are the family, business enterprises, government agencies, nations, and the common market.

The most general and fundamental property of all systems is the idea of the orderly interdependence of its parts or variables.¹² It is precisely this coherent grouping of relevant elements that differentiates a system from a chaotic jumble of parts and pieces. Thus, the following points sum up the nature of systems.

1. The whole is primary and the parts are secondary.

¹²Talcott Parsons and Edward A. Shils, editors, Toward a General Theory of Action (Cambridge, Massachusetts: Harvard University Press, 1951), p. 107.

2. Integration is the condition of the interrelatedness of the many parts within one.

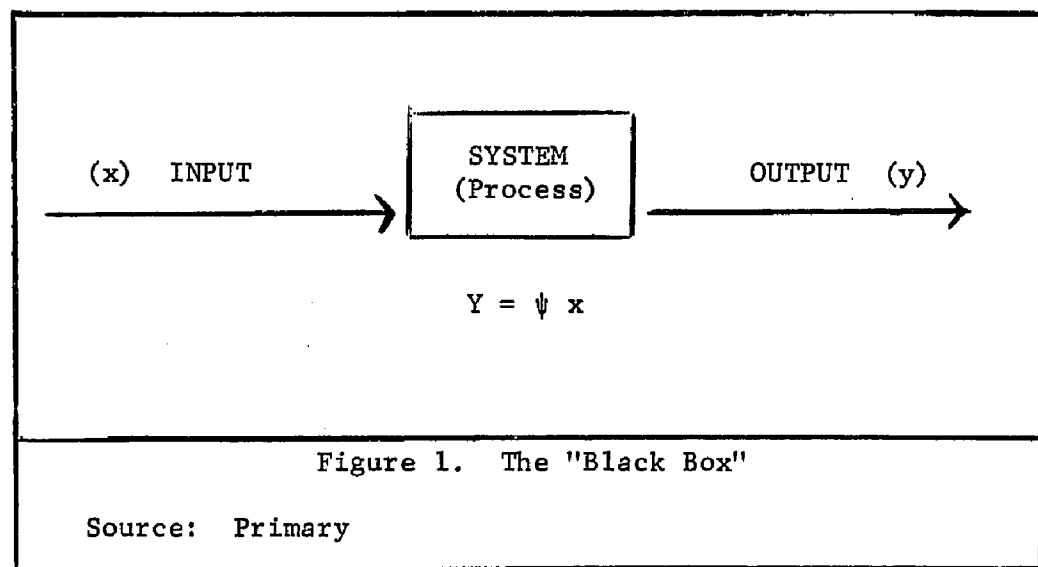
3. The parts so constitute an indissolvable whole that no part can be affected without affecting all other parts.

In the natural scheme of things, each system is a part of a still larger system which eventually encompasses the entire universe. The natural interrelatedness of all directive systems in this broad spectrum can be seen in the concept of "functionalism." For instance, the basic model of a consumer system is a structure which imports energy from the external world, transforms it, and exports a product to the environment which is the source for a reenergizing of the cycle. The same functions (input, throughput, and output) are attributed to all directive (goal orientated) systems whether physical, organic, or social in nature.

Basically, all directive systems are devices which accept one or more inputs and generate from them one or more outputs. These directive systems are typically represented by flow charts or block diagrams. This elementary system generally takes the following form in Figure 1.

Although mathematics is not essential to the comprehension of systems theory,¹³ it is interesting to note some theorists have developed a quantitative explanation of the system's production cycle. For instance, the symbol ψ represents the operating system and the input-output transformation which it induces by $Y = \psi (x)$.

¹³Lee Adler, op. cit., p. 116.



Time is always a real parameter in this input-output model. It may vary over an interval (proper and improper) in which case x is called a "continuous-time" input, or it may vary over some set of consecutive integers in which case x is a discrete (discontinuous) time input.¹⁴

In sum, systems theory points out these functional similarities in the theoretical constructions of different disciplines. Where one system demonstrates a more efficient operation than a less sophisticated system in performing the same functions, a basis for improving the inefficiency of the latter system can be established through analogy. This process is followed by the abstraction of all thinkable relationships from the immediately relevant body of knowledge in establishing a closed-loop itinerary for investigation and problem solving.

¹⁴Proceedings of the Symposium on System Theory, Polytechnic Institute of Brooklyn, Vol. XV (Brooklyn: Polytechnic Press, 1965), p. 6.

Certainly, one of the most important reasons for systems theory is that it facilitates interdisciplinary communication by emphasizing the similarities in the theoretical structure of the diverse doctrines. Although there is similarity between general methods of scientific approach, the results of research efforts are not often communicated across discipline boundaries. Hence, the conceptualizing and hypothesizing that is done in one area seldom carries over into other areas where it could conceivably contribute to the methodology of a major breakthrough in a less advanced discipline.¹⁵ Therefore, in order to draw upon the tenets of an interdisciplinary approach to this topic, the essential premises in developing a scientific systems approach to consumer motivation should be presented.

The Essential Postulates in Developing a Scientific
Systems Approach to Consumer Motivation

A science is often described as a systematic body of knowledge; arranged in a complete array of ideas, principles, and laws, forming a coherent whole.¹⁶ Scientists endeavor to develop, organize, and classify material into an interconnected discipline. Since business remains an inexact science, emphasis on explanation and prediction place considerable incentive on behavioral scientists to continue to develop relevant bodies of knowledge that can be organized into a macrosystem, within which microsystems can be analyzed. The distinction

¹⁵Richard A. Johnson, et. al., op. cit., p. 6.

¹⁶Ibid., p. 4.

here involves the fact that macrosystems consist of statistical aggregations of subsystem behavior while microsystems consist of directly observable goal motivated activities of its parts. One source which can provide behavioral scientists with a medium for achieving this end is systems theory in that this theory embraces all levels of the physical world from the study of a single cell to the study of society.

Physical Science Provides the Foundation for the Systems Approach

It is important to note that the hierarchy of systems appears to be the natural order of nature.¹⁷ The scientific fruitfulness of systems theory depends, of course, whether in fact there exist properties common to all systems, and if important consequences can be derived from these properties. There is a growing body of scholars who believe there are common properties relating all directive systems.¹⁸ This rationale might begin with the following postulate:

The natural sciences provide the fundamental principles and laws upon which all social systems operate.

This postulate supports the idea that the ultimate science is physics.¹⁹ It is conceivable that the future will bring a point in

¹⁷Ibid., p. 45.

¹⁸Ludwig Von Bertalanffy, "General System Theory: A New Approach to Unity of Science," Human Biology, December, 1951, pp. 303-361.

¹⁹Perhaps the following discussion will illuminate this idea further: The properties of any particular type of atom depend upon the number of protons in its nucleus. That is, one proton more or less is sufficient to completely alter the character of the atom and the properties of the substance which the atoms comprise. The protons are all alike; it is their number which makes the difference among atoms. The number of electrons in an atom equals the number of protons; the

time when all known phenomena can be explained by the laws and principles of physical science.

The idea of the interrelatedness of all directive systems is emphasized by the observation that all systems must perform similar functions to qualify as productive systems. That is, each is primarily concerned with the input, throughput, and output cycle in an effort to achieve the common goal of a widening differential between the value of outputs over inputs. Thus, these three activities are basic to all productive systems whether physical, organic, or social in nature.

Systems theory first places all directive systems on a common ground for analysis by abstracting the functions of these systems back to their three inherent activities. Once this is achieved, those systems most closely related in design and purpose can be analyzed comparatively. The system which demonstrates the most efficient operation is used as a model from which strategies are drawn in improving the operation of the less efficient system. This comparative analysis can be performed randomly between all types of systems whether physical, organic, or social. However, frequently it is found that the natural sciences provide the most efficient systems to be used as operational models for comparative purposes. Scholars have already

¹⁹(cont.) atom as a whole is, therefore, essentially neutral. This concept of the atom leads one to the conclusion that the infinite variety in the world around us is simply a matter of the number of protons and electrons in the atomic structure.

It is small wonder that scientists point out the substances that go into the composition of the tissues and cells of living organisms owe their architecture and properties to the operation of the same physical laws of atomic particles and forces that govern the chemistry of nonliving matter. Dean E. Wooldridge, loc. cit.

called for a marriage of ideas between the physical and social sciences. In this connection they point out, "we are about as advanced in the social disciplines as astronomy was in the middle ages."²⁰ The one method which can achieve this end is systems study.

A further step of diminution must be performed to derive the basic components of all systems which are directly affected by the input, throughput, and output activities of all productive systems. Modern science gives an essential clue in determining these basic components.

Everything that happens--every natural event and phenomenon--is to be explained and described in terms of matter and energy, in terms of some change, actual or potential, in the internal or external motion of the elements of some material system. Throughout the universe, matter and energy are inseparately associated. Each acts and interacts solely through the medium of the other.²¹

Thus, it is clear that some source of mass and energy is present in all productive systems. Such a treatise can be used to develop four postulates which identify precisely the concept of motivation in social systems. These postulates are as follows:

1. All productive systems (physical, organic or social) are input-output systems.
2. The lowest common denominators in these systems are energy and mass.
3. The universal environment for motivation is found in Le Chatelier's principle which states:

If a stress, any change in one of the variables that determines the state of a system in equilibrium, is applied to a system in equilibrium, the equilibrium is shifted in a way that tends to undo the effect of the stress.

²⁰Lee Adler, op. cit., p. 115.

²¹General Systems: Yearbook of the Society for General Systems Research, edited by Ludwig Von Bertalanffy and Anatol Rapoport, Vol. XI, 1966, p. 28.

4. Motivation is epitomized by the transformation of energy in a social system.

With human motivation being epitomized as the transformation of energy, the closed-loop (input-output) status of human activity can perhaps be more easily visualized. That is, the human consumptive processes (resources obtained from biosphere and society) necessitate and provide for productive human processes (resources expended into the biosphere and society) where the value derived from these activities may be seen as increments of energy. Obviously, consumption activities (input) must take place before productive (output) activities can be initiated. Of course, in a fully developed system which has an available surplus of energy, both activities may occur simultaneously. Thus, it can be seen it is difficult to discuss one motivational activity without the other, for they are both interdependent.

In retrospect, by using energy as the trace element to follow the basic activities of a behavioral system, a clearer understanding of the operation of motivation in the market place can be achieved. Using this trace element, analogies can be drawn from more sophisticated systems to improve the motivational environment of the market system. In addition, a closed-loop itinerary of investigation can be established in developing the concepts relevant to this study.

In line with this study's premise that "the natural sciences provide the laws and principles upon which social systems operate," a closer look at Newton's Laws of Motion should shed further light on energy's role in behavioral systems.

Newton's Laws of Motion Applied to Systems Theory

A broad interpretation of Newton's Laws of Motion expresses several meaningful relationships which can be used to illustrate some of the conditions which affect energy transformation in behavioral systems. Perhaps it would facilitate clarity in this section by remaining remindful that energy can be thought of as "the motion of, or capacity to produce motion in any mass of matter." Therefore, by suggesting that energy expenditure is a prerequisite to motion, a conceptual bridge is provided for applying Newton's Laws of Motion to energy activation in behavioral systems. Certainly energy represents the precious source of life and motion in our environment. All phenomena in nature seeks its minimum level of energy expenditure, i.e., it seeks the path of least resistance.

In analogizing these laws to social phenomena, one must remain cognizant of physics' universal application in our total environment. However, what is sought here is not finite prediction but rather a frame of reference for anticipating the conditions affecting activity within a behavioral system. In order to visualize the relevance of Newton's Laws of Motion to energy turnover in a behavioral system, it will be necessary to generalize broadly in reference to this material. This broad interpretation of Newton's Laws of Motion, illustrating their relevance to energy transformation in behavioral systems, will begin by stating specifically the law to be examined. Then a broad generalization will be made concerning the laws' application to behavioral systems, ending with an example of how this concept may be applied to some phase of consumer motivation.

Stated simply, Newton's First Law of Motion may be expressed as follows:²²

1. Every body continues at rest or in a state of uniform motion unless a force acts upon it.

Interpreted broadly, this statement would imply a behavioral system (consumers) remains at rest until enough influential stimuli (meaningful signals) are preceived by the system to stimulate it into altering its behavioral pattern. In order for the system to change its uniform pattern of behavior, the stimuli being perceived must be sufficiently influential to justify the additional expenditure of energy which would be necessary for such action. If the environmental stimuli are not sufficiently influential, then the behavioral system can be expected to continue an unaltered behavioral pattern. Thus Newton's First Law of Motion implies that all systems using energy exhibit a property known as inertia.

An example of this concept applied to consumer motivation may involve a customer or group of customers who resist buying or continue to buy a given brand of product. Unless the marketer can produce an atmosphere where the stimuli perceived by the customer(s) are influential to a change in his behavior, the route of least resistance would be for the consumer(s) to continue his present behavior pattern. Inertia, therefore might be thought of as the common human weakness of resisting change.²³

²²Clarence E. Bennett, Physics Without Mathematics (New York: Barnes and Noble, Inc., 1967), p. 37.

²³Martin L. Bell, op. cit., p. 46.

Stated succinctly, Newton's Second Law of Motion may be expressed as follows:

2. If a force acts upon a body, the body experiences an acceleration in the direction of the force and proportional in amount to it, as well as inversely proportional to the mass of the body.

This law implies that if an encoding behavioral system can create an atmosphere where the decoding behavioral system is receiving the stimuli with a high degree of fidelity, then this recipient system can be expected to be prompted to action parallel in direction and force to the stimuli.²⁴ Thus, the amount of effort (energy expenditure) required to change a behavioral pattern depends proportionally upon the scope and level of activity desired.

An example of this case in marketing could involve an advertiser who wanted to change the purchasing behavior patterns of a segment of consumers in the market place. Newton's Second Law would imply to the advertiser that, given the fact he has selected effective mediums for his messages, he could expect his advertising effort would have to be in proportion to the amount and speed of change desired in the consumers' present purchasing behavior pattern. Of course, in proposing this idea, one must keep in mind the difficulty of determining the true effectiveness of advertising and promotional endeavors.

Newton's Third Law of Motion can be stated as follows:

3. Associated with every force there is an equal and oppositely directed reaction force.

²⁴Encoding may be thought of as the process of translating the communication source's ideas into a message; decoding is the process of retranslating these messages into a meaningful form for the receiver.

This law implies that every action taken is equal to energy depletion in the amount of the energy exertion. Thus, for every action there is an equal and opposite reaction.

This concept may be represented in the market place by the consumer who expends energy (capital and labor) to purchase a particular item. The energy (labor) expended to obtain a product should be preceived by the consumer as proportional to the value, measured in latent energy units (capital) of the product. This concept, of course, represents the intersect of the demand and supply curves in classical economics.

Because of the vital role the concept of energy plays in the methodology of this study on consumer motivation, the environmental conditions under which energy is expended should be explored. Such discourse should begin with a discussion on the classification schemes of systems.

Systems Are Classified in Three Categories

Theorists have pointed out the applicability of the systems concepts in physical sciences to the problems of social science.²⁵ It is important, therefore, to examine in more detail the constructs of various systems and their pertinence to the study of human motivation. The classification schemes of systems which follows involves three types, the isolated, closed, and open systems.

The Isolated System. The isolated system is identified by the fact that neither its energy or mass is exchanged with its environment.

²⁵Daniel Katz and Robert L. Kahn, op. cit., p. 18.

The Second Law of Thermodynamics states that if a physical system (meaning a portion of the physical universe) is isolated from its environment, then the amount of entropy (disorder) in the system can only increase toward a maximum, never a minimum amount of entropy. In the natural sciences this means that the total energy in the system will remain the same (by virtue of the First Law of Thermodynamics); the amount of "free energy" (energy which can do work on the environment) can only decrease. In other words, the tendency in an isolated system is for its energy to be "degraded" or lost to unproductive ends before it can be channeled into work upon the environment. Thus, such systems tend to drift from more "organized" states to more "chaotic" ones.²⁶

As a result of the direct applicability of the Second Law of Thermodynamics to isolated systems, this system classification is not relevant to the study of behavioral systems. This can be seen in the fact that isolated systems do not import energy from the environment and, therefore, cannot slow the entropy process which leads to disorder and destruction of the system.

The Closed System. A closed system is characterized by the lack of matter exchange (mass is fixed) with its environment but the energy of the system does exchange with its environment. One example of the operation of a closed system with fixed mass may be seen in the concept of entropy and the Second Law of Thermodynamics. According to the Second Law of Thermodynamics, as a system moves toward equilibrium, it

²⁶General Systems, op. cit., p. 6.

tends to run down, i.e., its differentiated structures tend to move toward dissolution as the elements composing them become arranged in random disorder.²⁷ For example, heated liquid placed in a thermos bottle has a tendency to approach equilibrium because the thermos system cannot prevent some heat (energy) transfer from occurring.

Thus, because entropy (the tendency of a system to move toward disorder) is a significant factor affecting all closed systems, such systems are not relevant to the study of motivation in social systems.

The Open System. The open system is identified by its ability to exchange both energy and matter with its environment. The important distinction between open and closed systems has often been expressed in terms of "entropy." Closed systems tend to increase in "entropy"--to run down; open systems are "negentropic"--tending to decrease in entropy.²⁸

To survive, open systems must move to arrest the entropic process; they must acquire negative entropy. The entropic process is a universal law of nature in which all forms of organization move toward disorganization. Complex physical systems move toward simple random distribution of their elements and biological organisms also run down and perish.

The functioning of any open system thus consists of recurrent cycles of input, transformation, and output.²⁹ Of the open system's basic process, input and output are transactions involving the system

²⁷Daniel Katz and Robert L. Kahn, op. cit., p. 19.

²⁸Walter Buckley, op. cit., pp. 50-51.

²⁹Daniel Katz and Robert L. Kahn, op. cit., p. 453.

and some sectors of its immediate environment, transformation or throughput is a process contained within the system itself.

Social systems are basically open systems in that the input of energies and conversion of output into further energetic input consist of transactions between the system and its environment. There is a general trend in an open system to maximize its ratio of imported to expended energy to survive, and even during periods of crisis, to live on borrowed time.³⁰ By importing more energy from its environment than it expends, the open system can store energy and acquire a relative degree of negative entropy. Consumers whose incomes have been cut by the depths of a depression tend to try to maintain their previous standard of living by using their savings and the credit opportunities available to them.

Thus, our basic model of a social (consumer) system is a structure which imports energy from the external world, transforms it, and exports a product into the environment which is the source for a reenergizing of the cycle. It can be seen that human motivation is the major maintenance source of almost all social structures.

Open system theory is of extreme relevance to the study of consumer systems. Theorists have pointed out that in using open-system concepts, we neither have to follow the laws of traditional physics, nor in deserting them do we have to abandon science.³¹ Therefore, it may prove beneficial to review Katz and Kahn's nine

³⁰Ibid., p. 21.

³¹Ibid., p. 18.

characteristics of open systems enumerated in their text, The Social Psychology of Organizations.

1. Importation of Energy. Open systems import some form of energy from the external world. At the organic level, consumers absorb food staples from the biosphere which is turned into productive organic energy. At the cultural level, consumers receive social value units (potential energy) in the form of currency or credit.

2. The Throughput. Open systems transform the energy available to them. The consumer's organism transforms the low entropy matter from the biosphere into energy which can be used by the entity. On the social scene, the consumer transacts money and credit for goods and services needed for his respective standard of living.

3. The Output. Open systems export some product into the environment. The consumer expends his productive energy in the environment which results in some form of productive output. At the cultural level, the consumer spends his currency and credit, thus contributing to the monetary stream of society which is the source of the reenergizing cycle.

4. Systems as Cycles of Events. The pattern of activities of the energy exchange has a cyclic character. The product exported into the environment furnishes the sources of energy for the repetition of the cycle of activities. Consumers receive low entropy input from the biosphere and transform it into organic energy which is expended on the environment in the form of work. The consumer receives value units (currency) for his productivity which in turn is transacted in the market place in exchange for goods and services. The cycle is perpetual.

5. Negative Entropy. Open systems demonstrate the ability to import energy from the environment to arrest the entropy process. This energy is transformed into an output which has value to the environment. By importing more energy from the environment than is spent, the system finds the means for perpetuating itself. Consumer systems are able through their productivity to import social value (money) in excess of what is spent; the system, therefore, provides a means for sustaining itself in the face of an uncertain environment.

6. Information Input. Information and feedback are useful to open systems in that they are essential means in reducing the entropy process. That is, information allows the open systems to develop and order knowledge about their environment if they are to adapt to change. Information is vital to consumer systems for this medium is the basis for planning their present and future activity in maintaining or enhancing their standards of living.

7. The Steady State and Dynamic Homeostasis. The importation of energy to arrest entropy operates to maintain some constancy in energy exchange, so that open systems which survive are characterized by a steady state. Consumer systems attempt to maintain homeostasis with their reference groups by adjusting their productive outputs to achieve balance with their aspired social position. This principle is based on the preservation of the character (self concept) of the system.

8. Differentiation. Open systems move in the direction of differentiation and elaboration. Diffuse global patterns are replaced by more specialized functions. This same trend is witnessed in consumer systems from centuries past when most people had basically the

same types of staples. Today, with the perfection of mass production techniques, consumers assert their desire for differentiation by constantly demanding a widening assortment of goods to choose from. Such endeavors necessitate that consumers become more specialized in their tastes and purchasing patterns.³²

9. Equifinality. A system can reach the same final state from differing initial conditions and by a variety of paths. Consumer systems in the complex of a highly technical environment have numerous means available for achieving a higher standard of living. To illustrate the dramatic change in human opportunity, the contemporary socioeconomic environment might be contrasted to the period before the industrial revolution when lack of technology severely limited an individual's opportunity of achieving a higher living standard.³³

Actually, it is misleading to conceive the system and environment as separate doctrines. The fact is, they are one in the same. The system is merely an abstraction of an assemblage of objects related by some interaction or interdependence from the total universe. Therefore, the following section illustrates the close relationship between the system and its environment as well as the dynamic interaction which occurs between them.

Ecology, A Dynamic Environment for Adaptive Systems

A phenomenon of almost universal significance for all disciplines is the interaction of an "entity" of some kind with its environment.

³²George Katona, The Mass Consumption Society (New York: McGraw-Hill Book Company, 1964), p. 55.

³³Daniel Katz and Robert L. Kahn, op. cit., p. 26.

Every discipline studies some kind of "singular unit," electron-atom, molecule, cell, plant, animal, man, family, corporation, etc. The behavior (action or change) each of these entities exhibits is related in some way to the environment. Ecologists use the term "environment" to embrace these "nebulously defined abstractions." An environmental factor constitutes an external element that influences the behavior of a system component. Thus, comprehension of the system operation requires an exploration of the critical environmental conditions that surround it.³⁴

Each entity is thought of as being part of a hierarchy of systems which comprise a complex whole. For instance, a hierarchy of consumer systems may be composed of the individual, family, neighborhood, regional, and national markets. The skill of the researcher depends on his ability to abstract a given system from this complex social and physical environment.³⁵ The identifying criteria in accomplishing this task are enumerated by the following steps.

1. The boundaries of a system must be identified.
2. The conditions of the components in a system will determine system behavior.
3. The conditions of the components in a system are dynamic factors.
4. Ideally, a system should be capable of closure of complete separation from its environment.
5. Observation of system behavior under controlled conditions is desirable for study and control.

³⁴Martin L. Bell, op. cit., p. 20.

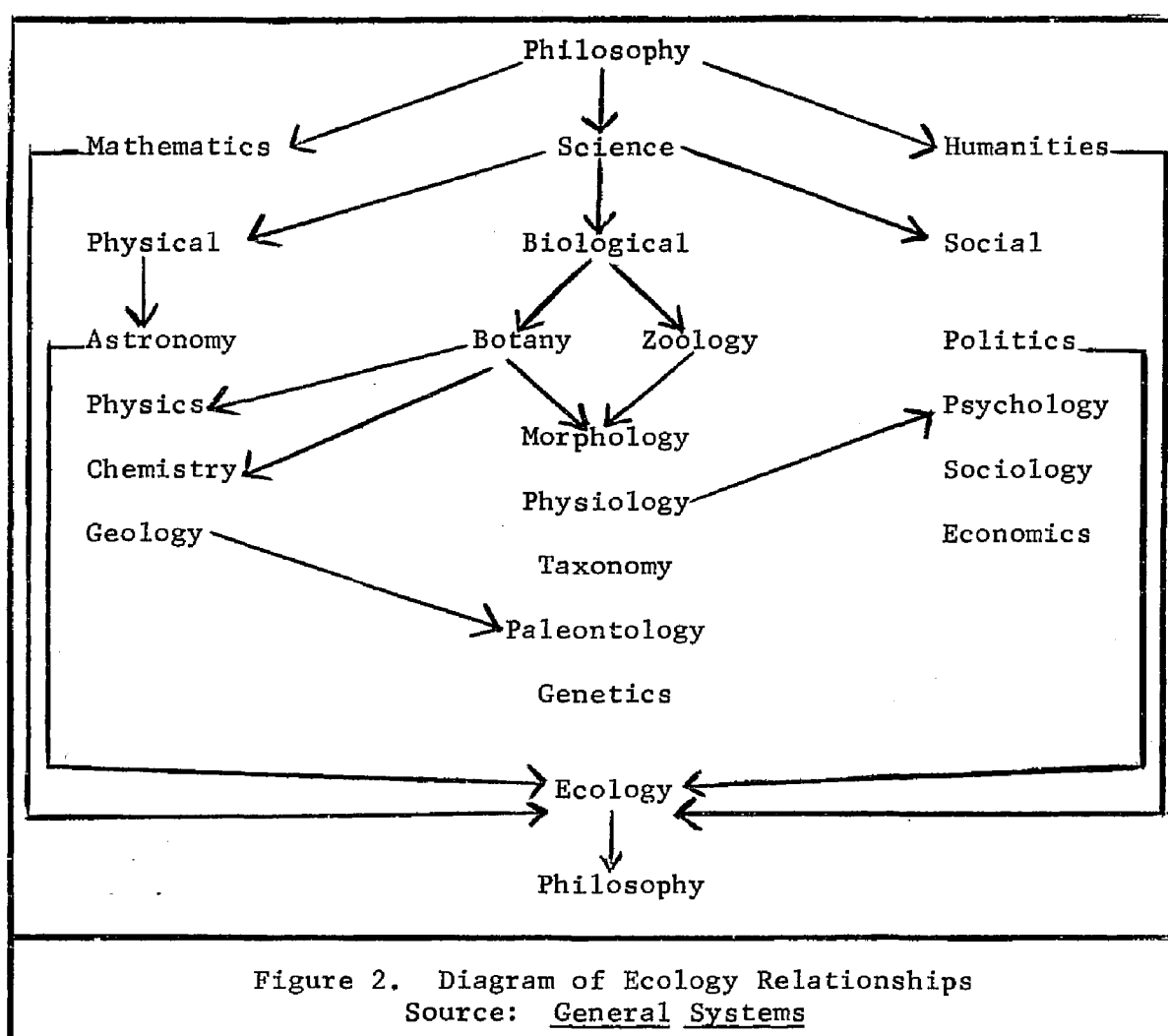
³⁵Kenneth E. Boulding, The Skills of the Economist (Cleveland: Howard Allen, Inc., 1958), p. 9.

6. System dynamics, the process whereby a system adapts to change, is important in problem solving.

7. A system is composed only of variable conditions.³⁶

These steps should be kept in mind when analyzing the total environment of man.

Human ecology is the study of man in relation to his environment. The following figure shows this important relationship.



³⁶Martin L. Bell, op. cit., p. 132.

The aggregate ecological concept of consumer motivation is that of an almost infinite number of organisms and systems acting and reacting among themselves and in relation with their respective environments. The resulting conditions affect not only the individual organisms and systems involved, but also they may change the complexion of the entire system. For instance, in the retail system, the general store has been replaced by a complete array of specialized retail outlets whose environment is far more conducive to consumer purchasing than the antiquated retail outlets of yesteryear. Thus, when a commercial system or, for that matter, any other system survives by establishing a place in its environment, it is said to have found an ecological niche.

Because of the constant interaction between the systems and the total environment, each system must constantly adapt to its environment or lose its place in the ecological scheme of things (general store replaced by the supermarket and other specialty retail outlets). By altering its function and adapting its behavior, an open system can adjust to its changing environment. A case in point is the adjustment consumers must make to significant fluctuations in the national economy. Through the adjustment of these new environmental relations, the system is often able to achieve at least its minimum goals. It is this capacity of a system that adjusts its form or function in order to achieve success or to survive in spite of changing environmental conditions that lie at the heart of ecological analysis.³⁷

³⁷ Ibid., p. 67.

Such conditions describe a physical system which typically proceeds to its most probable state of minimal organization (equilibrium) while organic systems characteristically work to maintain a specific structure within fairly definite limits. Social (consumer) systems are distinguished precisely by the fact that, rather than minimize organization or preserve a given fixed structure, they typically create, elaborate, or change structure as a prerequisite to survival as ongoing systems. For instance, down through history consumers have been known to form cooperatives, influence legislation, riot, boycott, picket, and even overthrow governments to protect their interests in the market place. It is this adaptive behavior in perpetuating survival and preserving the wholeness (characteristics) of the system (organic or social) which is called homeostasis.

The goals or objects of the consumer system are classified in the same manner as in the general ecological model--survival and security. A clearer understanding of this concept is achieved when survival is redefined as "homeostasis" in the social system.³⁸ Dynamic homeostasis is characterized by the survival and adjustment process to its environment. There is an importation of energy (from the biosphere as organic energy and from society as currency) to arrest entropy which operates to maintain some constancy in energy exchange so that open systems which survive are characterized by a steady state.

A steady state is not motionless or a true equilibrium. There is a continuous inflow of energy from the external environment and a

³⁸George C. Homans, The Human Group (New York: Harcourt, Brace and World, Inc., 1950), p. 34.

continuous export of the products of the system, but the character of the system, the ratio of the energy exchanges and relations between parts, remains the same. As the production and consumption cycle of the consumer system fluctuates, the system's motivational potential allows it to adjust in preserving a steady state so that the organism from time to time is not the identical organism it was but a highly similar organism. A classic example of social homeostasis concerning consumer systems is found in consumers' motivation to, "Keep up with the Joneses" or maintain their status.

Again, the general principle of Le Chatelier, who maintains that any internal or external factor making for disruption of the system, is countered by forces which restore the system as closely as possible to its previous state.³⁹ Thus, a social law can be postulated roughly corresponding to the physical law of inertia to the effect that every social system tends to maintain itself, to preserve its present state, until compelled by some force to alter that state.⁴⁰

Therefore, the most fundamental property of a living system is its ability to maintain its "organized" state against the constant tendency toward disorganization implied by the operation of the Second Law of Thermodynamics.⁴¹ Man's commercial activities are merely a highly specialized and greatly developed form of the general biological struggle for existence.⁴² This idea can be seen in the close similarity

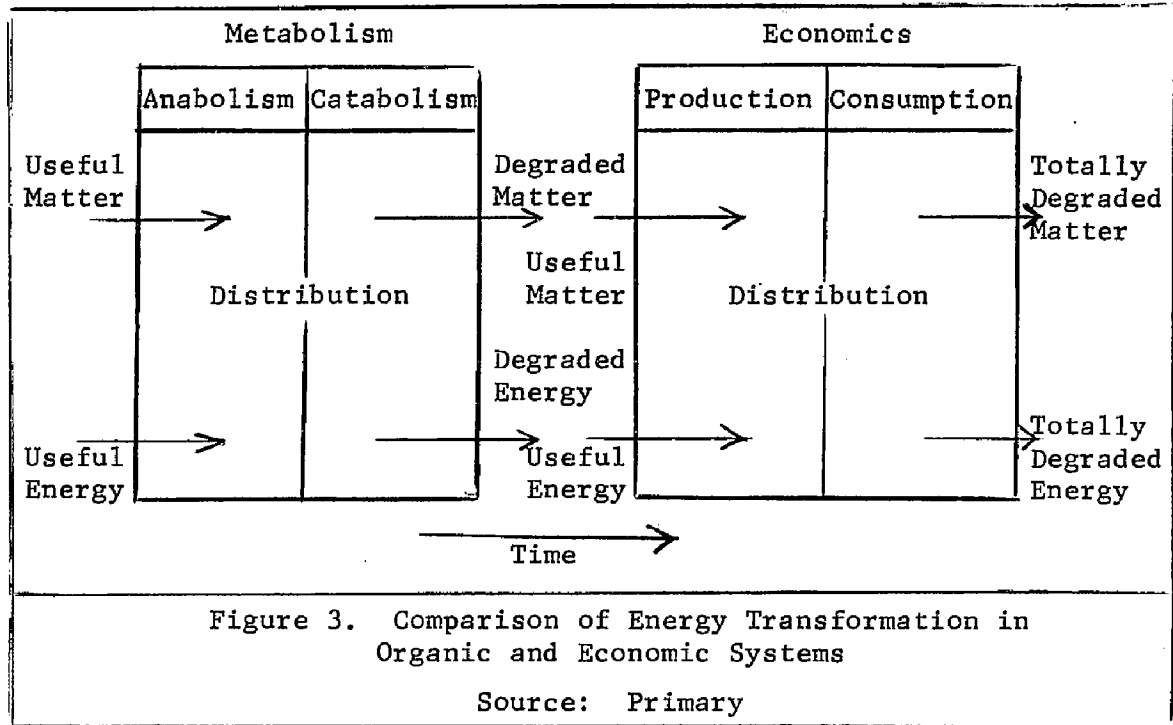
³⁹Daniel Katz and Robert L. Kahn, op. cit., p. 23.

⁴⁰Walter Buckley, op. cit., p. 9.

⁴¹General Systems, op. cit., p. 7.

⁴²A. J. Lotka, Elements of Mathematical Biology (New York: Dover Publications, Inc., 1956), p. 208.

of the basic within-skin life process of metabolism (anabolism and catabolism) with the outside-skin life process of economics (production and consumption) which is evident from the figure below.



In either process above, the only material output, is waste. The purpose of the economic process is an elaboration of synergistic effort toward the maintenance of life.

Thus, the law of negative entropy implies that systems survive and maintain their characteristic wholeness by importing more energy from the environment than they expend in the process of transformation and exportation.⁴³ Erwin Schroedinger has described life as a system in ready-state thermodynamic disequilibrium which maintains itself by feeding on low entropy from its environment, i.e., by exchanging high

⁴³Daniel Katz and Robert L. Kahn, op. cit., p. 28.

entropy outputs for low entropy inputs.⁴⁴ To insure survival, systems will operate to acquire some margin of safety beyond the immediate level of existence. The idea of saving income on the part of the consumers against unforeseen environmental hazards is analogous to rodents harvesting potential energy (acorns) to carry them over the scarce winter months, or mammals of the Ursidea family which gorge themselves in autumn to store potential energy (a heavy fat layer) which sustains them through the hibernation period.

As the efficiency⁴⁵ (consumer frugality) of the system increases, becoming more economical, the material and energetical losses of the components and of the whole system decrease. Efficiency indicates how much of the input of a system emerges as output and how much is absorbed in the processes of the system. Efficient productive behavior in the market system is an important objective for consumers because it is out of increasing total efficiency that rising standards of living are made possible.

In adapting to their environment, it is natural for U.S. consumer systems to cope with external forces by attempting to acquire control over them which is evidenced by consumer legislation, graduated income tax structures, and civil bureaus for consumer protection. Though

⁴⁴Erwin Schroedinger, What Is Life (New York: The Macmillan Company, 1945), Chapters 6 and 7.

⁴⁵Three terms which are closely associated but necessitate explicite definitions in this study follow: (1) Efficiency is measured by the ratio of outputs to some combination of inputs; (2) Effectiveness refers to the ability of a system to attain its goals; (3) Productivity refers to the ratio of a single input factor to the outputs obtained from a system.

it should be pointed out not all of the consumer's adaptation attempts have been successful, most notably is the consumer cooperative movement. Consumer systems will move toward incorporating within their boundaries the external resources (wealth) essential to their goal⁴⁶ of self enhancement. The result intended is an expansion of the influence of the original system. Thus, the steady state which, at the simple level, is one of the homeostasis over time at more complex levels, becomes one of preserving the character of the system through growth and expansion of social influence. The more complex the consumer system is, the more variables are required to describe the state of the system. If this complexity is associated with higher levels of organization (land, labor, and capital organized optimally toward productive output), the more the consumer system is equipped to resist disturbance in pursuing its objective toward higher standards of living.

In the U.S. culture, the consumer system organizes and prepares on an aggregative rather than a collective basis for change through the process of planning.⁴⁷ The planning process can be considered as the vehicle for the adaptation of the consumer system to changes in its environment. Obviously, a consumer system will cease to function when variations in its intake of energy or changes in its external and internal environment become too large. Thus, control through planning (synthesis of information) remains a strategic weapon for the survival of consumer systems.

⁴⁶Goals are the end results to be achieved within a given period.

⁴⁷Plans are the consumer's projected strategies in response to general economic, political, technological, and social conditions anticipated in the cultural environment at a specified future date.

In biological evolution, genes transmit the "knowledge" or organic forms over time. Also, gene mutations introduce occasional modified forms which compete, resulting in the success of the form best suited to the environment. In economic evolution, cultural information transmits knowledge over time, and in the case of consumer systems, new ideas produce mutant retail organizations from which consumers and competition determine the fittest. Thus, information has become the unifying concept underlying the working of organized systems, i.e., systems whose behavior is under control so as to achieve some pre-set goals. The control is accomplished by a process involving the coding, storage and transmission of information.

For "goal directed" consumer systems to operate effectively in the environment, they must receive feedback information concerning their current deviation from their goals. It is through such "sonar" processes that the system is provided with the direction for efficiently expending its productive energy in adjusting its behavioral pattern to satisfy its goals.

Perhaps the fine distinction between information per se and feedback is that information involves stimuli relating to the total environment, past events, and the system itself. Feedback is primarily concerned with "learning" stimuli which are instrumental in initiating new patterns of behavior in guiding the system in its adaptation to change.

Basically, information can be seen as reducing entropy in a system. In the aggregate, information allows a consumer system to organize and develop knowledge which it uses in planning the most effective course

of action in adapting to change. Without this vital stabilizing force, the system could be expected to become progressively chaotic in its activities as it descends toward total destruction. The idea can be illustrated by the use of a deck of cards. By placing the deck in chronological order, total knowledge is known about each card, so predictability as to what card follows (action) is high. However, by continuously shuffling the deck, the information is destroyed further each time until a point of very low predictability is reached. The process can be viewed as an increase in entropy resulting from the destruction of information.

The need for an open system to achieve and/or maintain homeostasis in its environment is essential to its survival. Such adaptation pressures emphasize the paramount role of motivation as the central maintenance force in all self-directed systems. Perhaps a model of homeostasis in the following section will illustrate with greater clarity the central importance of this concept to consumer motivation.

A Homeostasis Model for Consumer Systems

To simplify the representation of the interaction between the consumer system and its environment, these two elements have been manipulated on occasion as if they were entirely separate phenomena. Actually, the system is totally immersed within the environment, and it is frequently difficult to distinguish the borderlines between them. This is why any "black box" concept of system behavior is so artificial.

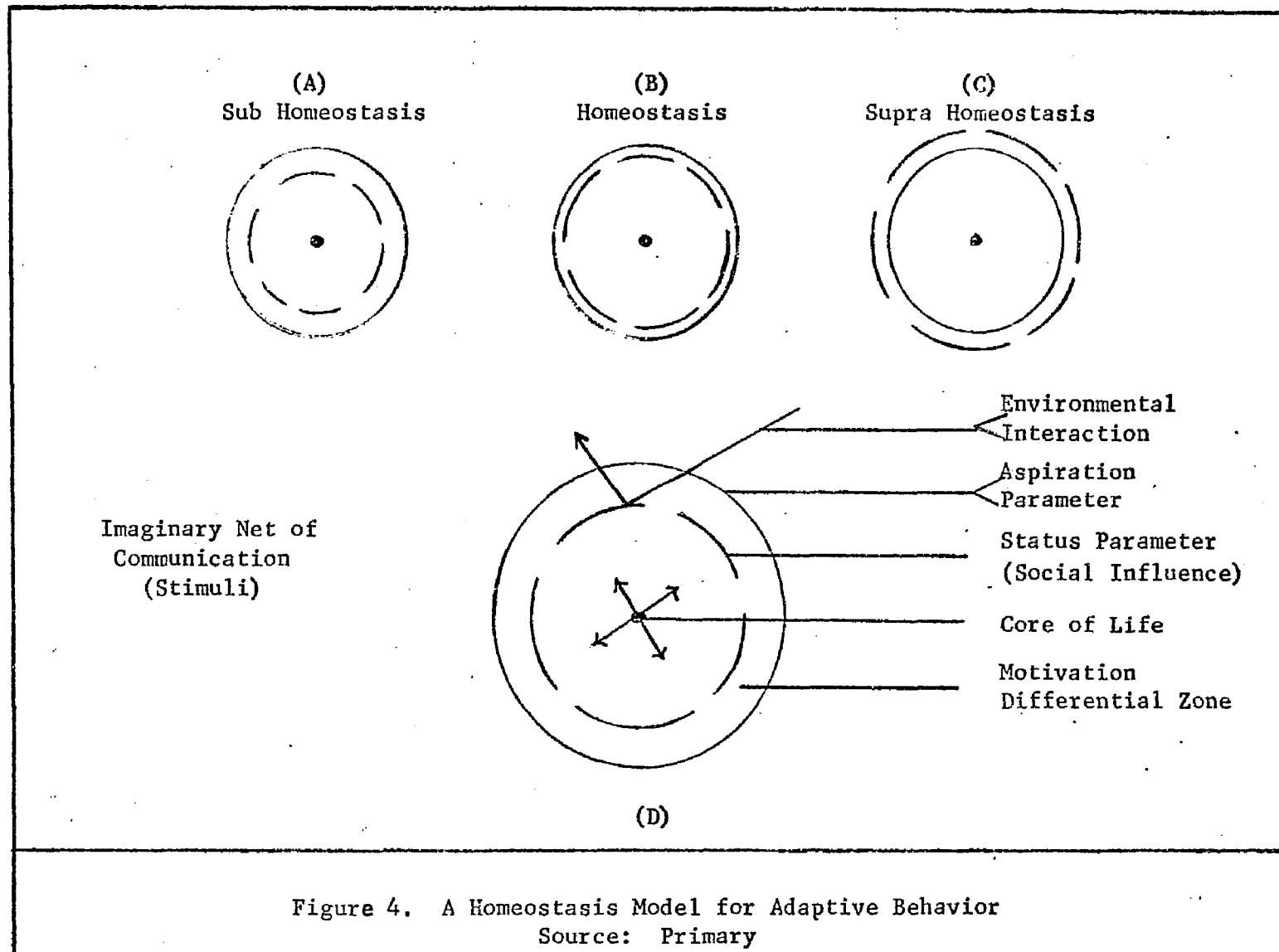
However, it is posited that a homeostasis model could be presented to supplant the input-output model by more adequately conceptualizing

the adaptation process of an entity in a dynamic society. Such an illustration would depict an entity as directly associated with the environment while exhibiting an area circumference relative to its social influence and proportional to its gravitation toward self enhancement. Although model building cannot by itself uncover new fundamental knowledge, it may provide new insight for the investigator in illustrating the dramatic interaction between the environment and the subsystem.

In Figure 4 the center points of all the circumferences represent the core of life--the irrepressible will to survive. From this hereditary seed, man experiences social interaction with his environment as he matures. This process of socialization results in the manifestation of the entity's self concept, which basically represents a social mirror of one's self identity.⁴⁸

Once the entity's self concept is consummated, it provides the motivational basis by which the consumer evaluates his relative position in society. An analogy using the "principle of relativity" might be used to illustrate this point. It is hypothesized that measuring or detecting the absolute motion of a body through space by physical experiment is impossible, i.e., only relative motion can be detected, and this depends on the observer's motion. Similarly, a consumer can only estimate his relative position within his social

⁴⁸ The self concept is usually thought of as a theory of personality. The concept is usually associated with four factors: (1) Real Self (you as you are); Self-Image (the way you see yourself); Ideal Self (the way you'd like to be); Looking-Glass Self (the way you think others regard you). See for example, George A Field, et. al., Marketing Management: A Behavioral Systems Approach (Ohio: Charles E. Merrill Books, Inc., 1966), p. 104.



environment by comparing his relative social position against these of the other members in the hierarchy of his social frame of reference. In this manner, a consumer has a basis for altering his behavior to achieve homeostasis set by the aspiration level of his drive for self enhancement.

Thus, the solid circumference in each of the models represents the entity's aspiration parameter established by his drive toward self-enhancement. The broken circumference represents the present status parameter perceived by the entity to be his current social position. When the status circumference is below the aspiration line, the energies of the entity are mobilized to push out the status parameters to achieve homeostasis (congruence with the aspiration parameter). The converse is true when the status parameter surpasses the aspiration line, then the entity reduces its mobilization of productive energies until the two lines are again congruent.

The process by which a consumer in this model alters his social influence (parameters) may be seen as similar to the metabolic process of a single celled organism. The social entity which wishes to expand its parameters merely mobilizes more productive energies to ingest those biological and psychological elements which complement its drive toward self enhancement. Conversely, a shrinking of the social entity's parameters involves less productive activity. In this process the only material output is degraded energy (waste). The purpose (value produced) of the metabolic process is homeostasis, i.e., the preservation of the characteristics of the system. Thus, this entire process implies that the success of the consumer system in altering its

parameters in obtaining greater social influence is directly related to the motivational potential and efficiency of its internal operation.

The cross hatchings in the model portray the imaginary net of communication which permeates throughout the entire environment. This communication network carries strong stimuli capable of triggering motivation from the entity, as well as weak stimuli capable of merely arousing a velleity. This communication stimulates action within the system and provides the coordinating mechanism for relating the parts of the system into a synchronized pattern. Each system is composed of subsystems from which a central coordinating system transmits and interprets stimuli as well as stores information. Taken together, this communication network constitutes a configuration bonding the total system into a centrally coordinated unit.

The status circle represents the cluster of characteristics (social influence) which compose the entity, and the aspiration parameter represents those characteristics which the entity desires to possess. This idea fosters the universal importance of the concept of wholeness. That is, all matter instinctively seeks to preserve and protect the character of its being. Systems strive to incorporate within their boundaries the external resources essential to survival and security within a given environment. The will to satisfy these two basic motives is known as the drive toward self enhancement which is the ultimate of wholeness. Examples of this concept are found in the physical world by ions which seek to neutralize their electron imbalance and organic systems which provide biochemical defenses against micro organic and physical harm.

Maslow's needs hierarchy may demonstrate how the human entity contributes to the wholeness of its self-concept. The basic physiological needs represent the necessity for food, water and shelter. Such basic needs provide the essential elements in sustaining the core of life. Once these needs are satisfied, the entity further strives to inflate its parameter by satisfying its safety and security needs. The success of this endeavor protects the entity from environmental dangers allowing the organism to divert energies toward the further satisfaction of the psychological factors of self enhancement. The next level to contribute to the growth of the entity's social influence is love and family relationships. The final stages which contribute to the concept of wholeness in perpetuating the character of the entity are self esteem (respect) and self realization (excellence in a chosen field of endeavor). Thus, a point is reached where the entity may experience the self satisfying stage of optimal satisfaction in the environment.

The previous sections dealt with the behavior patterns of consumer systems in view of their direct applicability to open system theory. The next section presents a systems analogy designed to contrast the operational similarities of an electro-magnetic (physical) system to a consumer (social) system. The analytical emphasis will be on the activation, route, and flow of energy in both of these systems. By contrasting these two diverse productive systems, further knowledge can be developed and conceptualized for a clearer understanding of the factors which affect motivation within a consumer system.

Systems Analogy, A Comparison of Energy Transformation
in Physical and Social Systems

It has been proposed that by comparing the functional similarities of sophisticated productive systems against the same operations of less efficient systems, information could be developed to improve the effectiveness of the latter system. One feasible means for implementing this procedure is through the medium of analogy.

Analogy is so fundamental to our way of thinking that the ability to recognize analogies is generally considered a prodigious adjunct to knowledge. While there is a vast difference between analogy on the one hand and logical proof and empirical verification on the other, it by no means follows that the former belongs only to the arts and not to science. Analogy is perhaps the essence of the inductive side of science.⁴⁹

Historically speaking, Veblen and his followers made great use of evolutionary analogies, not to mention Spencer and the viewpoint of Social Darwinism. Marketing analogies from biology have also been inspired as witnessed by the influence of Darwinism on the theoretical offerings of the late Wroe Alderson.

The purpose of this section is to bring together some of the more salient operational similarities between physical and social systems. Through this procedure it can be illustrated how the more established physical sciences can contribute to the knowledge of social sciences.

⁴⁹Nicholas Georgescu, Analytical Economics (Cambridge, Mass.: Harvard University, 1966), pp. 114-124.

It should not be construed that this is an attempt to merge both the physical and social models in the same frame but rather a means for observing their functional similarities in drawing upon those efficiencies which will contribute to the effectiveness of consumer systems in the market place.

One procedure for achieving this end would be an analogy contrasting the functional similarities of an electro-magnetic system and a consumer motivation system. However, such visionary X-ray will necessitate removing the shackles of conventionalism. It is, therefore, intended that the following sections illustrate the structure and functions of a consumer motivation process by analogies drawn from concepts in physical science.

Electrical Physics Concepts

A brief review of two concepts of electrical physics may lead to a clearer understanding of the principles underlying the consumer system's structure and functions necessary in creating conditions for efficient motivation. Case I concerns the principles of energy expenditure in a simple closed circuit electro-magnetic system. Case II is a brief resume of the principles of magnetism. It is proposed that these underlying physical principles will form the basis of an analogy for motivation in a consumer system.

(Case I) The main source of electric energy in this closed circuit dry cell system is an electrolyte composed of a mixture of granulated carbon, graphite, manganese dioxide, zinc chloride and sal ammoniac. In the chemical reaction, the zinc container is negatively charged (cathode) and the carbon rod is positively charged (anode). Negative charges repel each other but are attracted to positive charges; if a conductor is used to connect the two electrodes, the negative electrons will be attracted and flow from the zinc

cathode to the carbon anode. As long as there is a potential difference of more electrons being represented on the cathode than on the anode, current will continue to flow, thus electricity is created. A material which allows free movement of many electrons (copper) has low resistance and is considered a good conductor. Conversely, a material which allows only a few electrons to move freely (glass) has high resistance and is considered a poor conductor. In Figure 5 (Part A) the flow of electrons passes through the peak resistance area or load in the electro magnet. The greater the resistance, the more voltage (force) necessary to supply a constant and adequate current (flow of electrons) through the work load. However, if a relatively inefficient conductor is used in transferring the electrons through the load area, the resistance of the conductor will cause some electric energy to be lost in the form of heat, thus decreasing the efficiency of the circuit.

(Case II) The theory of magnetism is explained by observing an unmagnetized iron bar with atoms grouped into microscopic grains called domains arranged in random order [Part B(1)]. However, when the metal is magnetized, the domains line up in a rank and file order of a north-south relationship [Part B(2)]. Whenever the domains in an iron bar are in this orderly formation, a magnetic field exists consisting of many lines of magnetic force. The force can be one of attraction or repulsion, i.e., like poles repel, opposite poles attract. However, these lines of force come from the atoms of a magnetized piece of iron when the atoms line up with all their positive charges in the opposite direction. The lines of force of all the atoms are added together, thus the strength of the magnet will depend upon the width of the field of these lines of force. It is thought the top limit of the magnetic strength of any piece of material has been reached when all its domains have been lined up.

The two case concepts in electro-magnetic circuitry are offered to strip away the molecular shell of two seemingly diverse productive systems (analogy presented in Figure 5, Part A and B) and thereby expose their parallel principles of activation. Thus, a greater insight into the principles of motivation is thought to be gained by analogizing the operational principles of an electro-magnetic system to a consumer system in the market place.

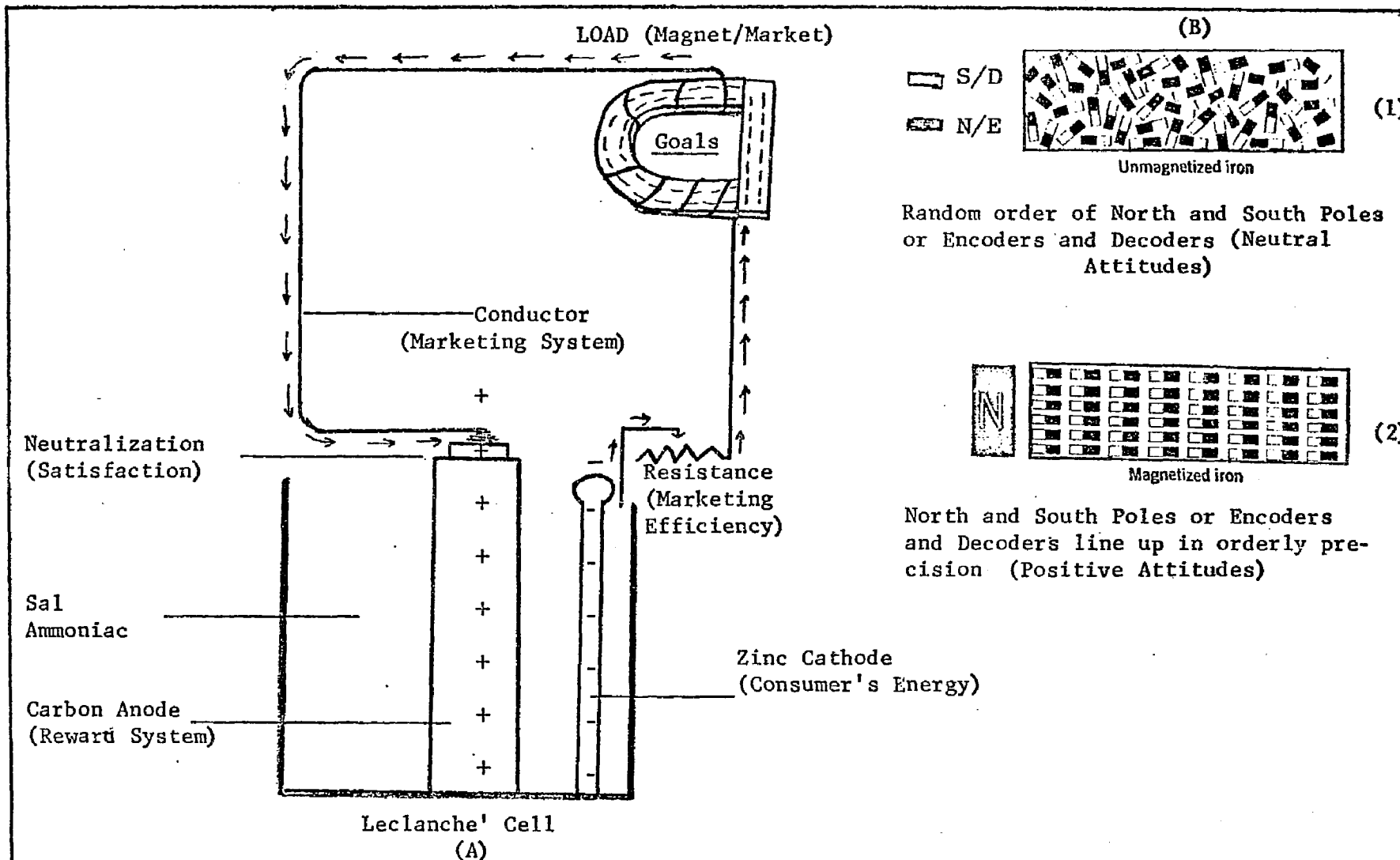


Figure 5: Schematic Analogy of the Functional Similarities in an Electro Magnetic System and a Consumer System

Source: Primary

Systems Analogy

The principles under which all productive systems operate are basically similar in function. Each productive system's structure should be designed to direct the system's internal energy toward goal accomplishment in the most efficient manner. Since the principles under which physical productive systems (electro magnetic systems) operate are considered universal, an attempt will be made in this section to contrast the functional similarities between physical and social systems. It is intended that this analogy will provide a clearer insight into the intricacies of motivation as well as a useful guide for improving the satisfaction derived from the market place by consumer systems.

Earlier, it was observed that Homo sapiens like all living organisms basically function by absorbing, storing and transmitting energy toward primary goals of self enhancement. Since energy is one of the lowest common denominators inherent in all productive systems and is the ability of matter to do work, it is at this level that analogies may begin.

Productive energy is activated in physical and consumer systems when potential energy (energy of position) is transformed into kinetic energy (energy of movement) in directed effort toward goal achievement. A clue to this essential point can be observed in the Second Law of Thermodynamics which states that if there is to be an effective expenditure of energy in a physical system, then some source of direction must be provided.⁵⁰ Just as molecules left to themselves become chaotic,

⁵⁰George Russel Harrison, The Role of Science in Our Modern World (New York: William Morrow and Company, 1956), p. 7.

a consumer system without direction soon perishes.

In the physical (electro magnetic) system, potential energy is activated into kinetic energy when a conductor is connected to the cathode and anode of a dry cell system providing the means of direction by which electrons flow in their attraction to positive circuitry points. Similarly, potential human energy is motivated into kinetic energy when the marketing system operates like a conductor in providing direction for consumer needs to be satisfied by basic and psychological rewards from the market place. In both systems, goals are achieved when the flow of productive energy passes through the load (market or magnet), i.e., attains the system's production objectives enroute to achieving rewards (satisfaction or neutralization as a result of reaching points of attraction). For the social system, such an analogy illustrates the opportunities for consumers to achieve personal goals through achieving society's goals (capital turnover in the market place leading to higher standards of living) in their effort toward personal need satisfaction.

However, if the conductor (medium through which energy passes) of energy in either system is inefficient, it provides resistance in the free flow of energy to goal achievement, thus dissipating productive energy as heat or waste. For instance, to consumers the marketing system may be thought of as the conductor through which their productive energies (capital) must pass enroute to achieving satisfaction of their goals. The resistance factors in this marketing conductor may be thought of as time, place, and possession utilities. The more inefficient the marketing system is, the higher the cost (resistance) to the consumer as a result of the lack of optimization of these three basic

marketing utilities. The higher the percentage of waste in consumer energy as a result of these inefficiencies, the less productive energy that reaches the market place. The retrograde chain reaction following this marketing inefficiency can be traced to less capital turnover in the market place. Next, would be a reduction in the output entrepreneurs could sell with relatively smaller aggregates in wages and profits distributed to consumers culminating in a substantial restraint in the social objective of obtaining successively higher standards of living.

Once the energy of the system reaches the market, the behavior of the consumer can be seen as similar in operation to that of a magnet. That is, the attitudes of a consumer are similar in nature to the domains of the magnet. When the material or product contains the characteristics which the system (electro magnet or consumer) is attracted, a point of mutual interaction occurs. Consumer attitudes, a predisposition reflecting the degree to which an individual perceives an object affects his goal toward self enhancement, can be seen as a directional force to productive energy. When a product is perceived by a consumer to contain the characteristics which are thought to complement the characteristics of his goal toward self enhancement, the result is his attitudes become aligned to the product. Once the cue of motivation (energy transformation) is triggered, the free flow of energy (lines of force) passes through the attitudes (domains) to encompass the product. Similarly in a magnet, when it reaches peak effectiveness, and it is attracted to an object, the opposite poles of its domains are lined up in orderly fashion. Attitudes are a precondition to activity. By substituting the words encoder and decoder

for the north and south poles of the domains and using the same example, one sees consumer systems reaching peak effectiveness when the encoders and decoders (consumer transmitters and receivers) are lined up in orderly precision. Such an example would optimize consumer motivation, for the encoder is the process of putting stimuli into communicable messages while the decoder is the process for comprehending the various stimuli. Thus, once the product's characteristics are interpreted by the perceptual filter of the consumer's mind as complementary to the characteristics of their goal toward self enhancement, the attitudes aligne their positions toward this product. This allows the free passage of activated energy (lines of force) to encompass and attract (purchase) the product; thus, it enhances the system through satisfaction.

Certainly, the efficiency of the marketing system (conductor) has a great deal to do with the efficiency with which consumers expend productive energy in the market place. The function of marketing in delivering higher standards of living requires that marketing strategists constantly innovate and elevate a continuous procession of wants for consumers. The maintenance of a significant potential difference between rewards and satisfaction in the marketing system is analogous to maintaining a potential difference between two oppositely charged poles in an electrical circuitry system. The task of maintaining this attraction differential is closely aligned to the quality of marketing leadership in the drive to deliver higher standards of living to the consumers.

A Summary of the Salient Factors Concerning
A Systems Approach to Consumer Motivation

In an universal environment beset by endless change, a marketing organization can be thought of as a living entity which must constantly struggle to survive by adapting or exerting some degree of control over its habitat. Man is constantly adding knowledge to these environmental conditions which is growing with increasing speed, presenting inestimable technological obsolescence to those marketing organizations ill equipped for maintaining a balance of power in the struggle for survival. In order to compete with greater efficiency in such environmental conditions, marketing organizations have demonstrated vast growth in size, complexity, and diversity with increasing stress on marketers to combine massive resources into an integrated whole at a minimum of cost in human energy and material. Perhaps the degree of success marketers experience in accomplishing this feat is directly related to their ability to motivate consumers.

It has been posited that what is needed to effectively analyze the available knowledge applicable to consumer motivation is a conceptual scheme which can serve as a frame of reference for marketing decision makers. This frame of reference (theory) should allow knowledge as well as methodology to be drawn into the focal point of an interdisciplinary approach to consumer motivation. Also, this conceptual scheme should provide a closed-loop itinerary for investigating the present body of knowledge on consumer motivation. The success of developing such a conceptual scheme should provide the marketing decision maker

with a theory of action in readily defining, analyzing, solving, and taking effective action on problems concerning consumer motivation.

Perhaps one of the most fruitful means for visualizing the ramifications of consumer motivation is through the medium of systems theory. Since all productive systems are basically the same, i.e., input-output systems, some parallels in function may be drawn from an analogy that strips away their molecular structure to expose the underlying laws of physics basic to the operation of two seemingly disparate systems. Again, energy is one of the lowest common denominators in both systems and a limited resource. It would seem its expenditure should be accomplished with enough efficiency to create a surplus of value in output over input in order for the process to qualify as a productive system. This excess in output value may be seen as surplus potential energy (adipose matter in organisms and currency in social systems) necessary for sustaining all self-directed productive systems through the unknown perils of their environment where energy reservoirs may become exhausted.

Thus, the prime purpose of a consumer system is survival over a given period of time. This is achieved in the production environment by synergistic human effort in creating a surplus of potential energy (profits) through the sale of goods and services. Survival in the marketing environment is perpetuated through synergistic human effort in attempting to control some sectors of the environment and concerns such social policies as the graduated tax structures, consumer legislation, informative consumer news media, and counseling and protection agencies. Thus, this synergistic effort is created and activated in

conjunction with consumers' primary and secondary motives of survival and social security. These motives are conditioned by the environment and provide the incentives by which employees enhance their ability to absorb, store, and transmit energy physiologically and socially (potential energy represented as money) in sustaining life at a level of security conducive with their desired rank (status) within their environment.

By constructing simple operational models of physical productive systems, greater insight into the intricacies of motivation in a consumer system can be gained by analogizing the similarities in structure and function of the physical system with the social system.

Certainly a paramount feature of consumer motivation is the characteristics of the marketing environment (conductor) considered to be a function of the marketing leadership climate. Ideally, marketing leaders should accomplish two objectives in the effective use of productive consumer energy. First, marketing oriented leadership should see that productive consumer energy flows through the market place (load) with a minimum of resistance (represented by the inherent cost of providing time, place, and possession utility). Second, marketing leaders should strive to supply constant and adequate force (through continuous want creation) behind the energy flow to accomplish the goals (social enhancement) of the marketing system in an efficient manner.

It is with this latter point that Chapter III will be concerned, i.e., the psychological environmental factors that activate the flow and provide the force behind consumer energy into the market place.

Chapter II provided a conceptual scheme for analyzing the body of knowledge associated with consumer motivation. Thus, the stage has been set for succeeding acts which will delve into the psychodynamics of the factors which catalyze and maintain the flow of consumer energy in the market system.

CHAPTER III

THE PSYCHODYNAMICS OF CONSUMER MOTIVATION

In the previous chapter the merit of a systems approach to consumer motivation was presented. First, the all inclusive structural perspective of this medium was discussed in terms of the significance of projecting the total system (topic) as composed of numerous subsystems. The paramount consideration here was that a change or force affecting one of these subsystems must be seen as affecting the character of the total system. For instance, a change in price levels can be expected to affect the total character of consumer motivation. Second, a systems approach provides a closed-loop itinerary of investigation. That is, by breaking all productive systems down to their lowest common denominators (energy and mass), energy becomes a convenient trace element to be followed throughout the productive processes of the system. Thus, by analogizing the transformation of energy in two seemingly diverse systems, one can visualize the essential factors leading to an efficient expenditure of energy in physical systems and apply similar strategies to energy transformation in social systems. By utilizing such a procedure, the process of energy transformation can be followed in closed-loop fashion, providing the marketer with a frame of reference for elucidating and amending inefficiencies in the market place.

Conceivably, a systematic analysis of consumer motivation would begin with the intra personal (psychological) forces which motivate consumer behavior and work toward the extra personal (social) forces. It is a generally accepted idea that the secondary (learned) needs of man are insatiable and predominant motivators of human behavior after the primary needs have been relatively satisfied. Thus, this chapter will delve into the psychological variables which are thought to be paramount factors in catalyzing the transformation of consumer energy (capital and labor) in the market place.

Toward the Goal of Self Enhancement

Perhaps this chapter could begin with Aristotle's dictum that the mind at birth is a "tabula a rasa," a blank table.¹ However, a second thought may add that the "goal of self enhancement" is indelibly etched on this mental set and can be seen as the center of gravity in the study of human behavior, for man begins life with the irrepressible will to survive. In addition, through the process of maturity, Homo sapiens become increasingly aware of the significance of their compeers in the drive to find an ecological niche in their social environment.

Several authors in marketing have perceptively described consumers as similar in nature to atoms which tend not to exist in isolation.² The "goal of self enhancement" for Homo sapiens is not unlike the

¹William A. Yoell, "Determination of Consumer Attitudes and Concepts Through Behavioral Analyses," Attitude Research at Sea, Edited by Lee Adler and Irving Crespi (Illinois: American Marketing Association, 1966), p. 17.

²George A. Field, et. al., op. cit., p. 118.

process of ionization in the physical environment. For just as atoms have specific characteristics which identify their place in the physical world, so too must people protect the characteristics of their "self" which provide for a position in the social order of their environment.

For instance, an atom through environmental interaction is known to gain or lose electrons at random intervals. When this occurs, the atom will become unbalanced with an excess or deficiency of electrons and is said to be ionized. Since such conditions are not characteristic of its true identity (properties), a state of tension within the atom is created in which it seeks to reestablish its true character by shedding or attracting an electron to achieve balance again. Basically, Homo sapiens behave in the same manner. That is, the human entity seeks to protect the characteristics of its "self" which it associates with its identity (position) in the social environment. When the entity perceives that it has gained or lost properties which are thought as detrimental to the goal of self enhancement, a state of tension is created. Thus, the entity is motivated to reduce this state of tension (cognitive dissonance) by absolving itself of these undesirable properties or attracting to itself those characteristics which were perceived as being lost in order to reestablish balance (homeostasis) with the environment. Thus, all human behavior can be viewed as directed toward tension reduction.³

³Alfred R. Oxenfeldt, Executive Action in Marketing (California: Wadsworth Publishing Company, Inc., 1966), p. 70.

The universal environment for motivation is found in the general principle of Le Chatelier who maintains that any internal or external factor making for disruption of the system is countered by forces which restore the system as close as possible to its previous state.⁴

Therefore, social motivation can be conceived of as arising out of a state of tension which develops from feelings of disequilibrium (relative inferiority) within the individual. This triggers a sequence of psychological events directed toward the selection of a goal that the individual anticipates will bring about release from these tensions. The person next initiates the patterns of action (energy transformation) to achieve satisfaction (tension reduction) through goal achievement.

A more thorough explanation of motivation describes the fundamentals of this process in a three-stage cycle. First, there is the need which is defined as the individual's strong internal stimuli impelling action.⁵ When a need is not satisfied, the need is said to lead to a drive. Motives have generally been classified as an expression of a person's needs and are technically defined to include both a need and a direction of behavior (drive). However, the terms "need," "want," and "motive" are frequently used synonymously.

Unlike the atom, Homo sapiens face two distinct environments seeking to survive (a position) in the physical environment while striving for security (a position) in the social environment. In view

⁴Daniel Katz and Robert L. Kahn, op. cit., p. 23.

⁵Philip Kotler, Marketing Management: Analysis, Planning and Control (New Jersey: Prentice-Hall, Inc., 1967), p. 85.

of this, psychologists generally agree that needs fall into primary and secondary categories.⁶ Primary needs arise from innate tension systems. They are physiological in nature and include biogenic needs such as hunger, thirst, and sex. Secondary needs are those based upon learned tension systems and are sociological in nature. These psychogenic needs include such factors as achievement, recognition, and self development.⁷ These needs are insatiable and generally take on a hierarchy of order as subsequent needs are satisfied. An example of this order may be found in Maslow's needs hierarchy: (1) survival, (2) security, (3) love, (4) self esteem, and (5) self actualization.⁸

The marketer would do well to concentrate on the secondary or learned needs for they are relative to the properties possessed by other social entities. In a society which constantly strives for a higher standard of living by building on the cultural foundations of the past, such conditions should continue to provide unestimable potential for consumer motivation.

Thus, the need creates a tension which stimulates the individual toward the second stage of the cycle--behavior which will reduce the tension and satisfy the need. This state is usually considered a drive and is thought of as the reason or motive underlying certain

⁶James A. Bayton, "Motivation, Cognition, Learning--Basic Factors in Consumer Behavior," Managerial Marketing: Perspectives and View-points, Edited by William Lazar and Eugene J. Kelly (Illinois: Richard D. Irwin, Inc., 1962), p. 624.

⁷Martin L. Bell, op. cit., p. 180.

⁸A. H. Maslow, op. cit., p. 80.

behavior patterns.⁹ The drive tensions lead to acts which will achieve the goals that in turn satisfy the need and thereby reduce the tension. Perhaps the epitome of the drive state in man is his goal toward self enhancement in seeking to achieve survival and security within his environment.

The third stage is the attainment of the goal which satisfies the need and simultaneously reestablishes a state of balance or homeostasis within the individual. Frustration can also occur at this point when the individual perceives his efforts are not achieving the goal. Marketers are aware of the effects of prolonged frustration on the part of the consumer which may take the form of a change in shopping patterns, agitation or outright dishonesty.

Perhaps Stagner and Karwaski provide the clearest insight into the relationship between motivation and homeostasis. These are the major points found in their thesis:

1. Energy mobilization begins when an inner equilibrium is disturbed and continues until this equilibrium is restored.
2. Homeostasis motivation should be extended in such a way that it appears to function on the social as well as the biological level.
3. Motivation cannot be ascribed to a specific set of inborn needs or drives.
4. Motivation is a function of the total organism, the energies of the entire organism tend to be mobilized in active effort to restore the balance or homeostasis.¹⁰

⁹E. Jerome McCarthy, Basic Marketing: A Managerial Approach (Illinois: Richard D. Irwin, Inc., 1964), p. 239.

¹⁰James L. Latham, op. cit., p. 142.

Psychologists tend to prefer the term incentive to goal or reward. The incentive is assumed to bring about reinforcement because it reduces the tension in achieving homeostasis as well as establishes a pattern of behavior based on the Law of Effect (Haire). That is, those behaviors which seem to lead to reward (tension reduction) tend to be repeated, and those which seem not to lead to reward tend to be eliminated. Reinforcement may be innate (eating to satisfy hunger) or it may be learned (purchasing a status symbol). As indicated earlier, the former is much more likely to lead to saturation. Many of the important incentives in adult human behavior are learned social rewards.¹¹ Partly for this reason some academicians have described life as the "pursuit of meaning."¹² Therefore, the next section will illuminate the process of man's quest for knowledge and its role in the psychological parameters of consumer behavior.

The Search for Meaning

As was emphasized earlier, the ultimate of human endeavor is the goal of self enhancement. If man is to survive and find security by adapting as well as exerting some control over his environment, he must develop those behavioral patterns which will achieve this end. This process of developing successful behavioral patterns commences at birth. As it has been stressed, aside from the innate survival

¹¹John A. Howard, Marketing Theory (Boston: Allyn and Bacon, 1965), p. 103.

¹²Gilbert Burke, "How American Taste is Changing," Marketing In Action: Readings, Edited by William J. Shultz and Edward M. Mazze (California: Wadsworth Publishing Company, 1963), p. 41.

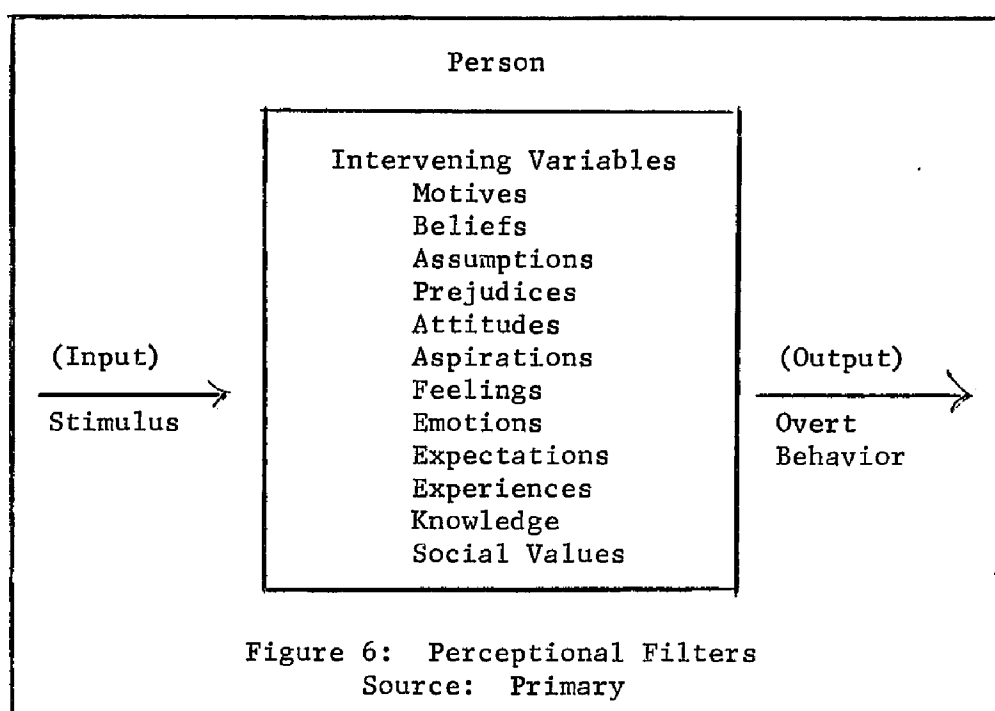
instinct, man is truly destitute at birth and must learn the behavior patterns which will enhance the "self" in the social environment. For this goal to be accomplished, a predictable response must be associated with specific stimuli, thus giving meaning to the phenomena (object and actions) of man's environment.

Perhaps this process can best be illustrated in the context of perception. Basically, man interprets the nature of his relationship to other phenomena in the universe through stimuli which he receives through his five senses (taste, touch, smell, sight, and hearing). Because of the inherent limitations of the sensory processes, which, of course, vary from one individual to another, the person is forced to select and organize stimuli in a manner which is most meaningful to him. Thus, perception might be thought of as the cognitive process by which people select, organize, and interpret sensory stimulation into a meaningful and coherent image of their environment.¹³ In other words, perception is an entity's mental view of the world which is focused on the task of guiding the individual through his environment toward the goal of self enhancement.

Although the senses detect only a small part of the signals available in the environment, the range they cover still contains a lot of information. By combining these impressions from the senses, the brain distinguishes an almost infinite number of phenomena. The critically important point is that people perceive differently. What a person perceives depends not only on the transmission of energy

¹³B. Berelson and G. A. Steiner, Human Behavior: An Inventory of Scientific Findings (New York: Harcourt, Brace and World, Inc., 1964), p. 88.

changes from the physical world through his sense organs but also on his past experiences. The combination of these two psychological processes may be more readily recognized as the manifestation of perceptual filters. An example of these perceptual filters may be found in Figure 6. The central fact about perceptual filters, through which all knowledge of the world comes, is that they change their properties with experience--not only their basic properties of range and sensitivity, but their less measurable characteristics of selectivity and organization.¹⁴



The less information the individual gets from the immediate situation, the more he can be expected to supply from his past experiences.¹⁵

¹⁴Michael Halbert, The Meaning and Sources of Marketing Theory (New York: McGraw-Hill Book Company, 1965), p. 118.

¹⁵Ibid.

Thus, the individual reacts to stimuli according to what he perceives to be its relation to him and his environment and then acts in the best manner to serve the "self" within the boundary of his perceptual world.

In order for the individual to develop a frame of reference from past experiences, the process of learning must take place. Gestalt psychologists hypothesize that learning involves the continuous organization and reorganization of one's perceptual system into more meaningful patterns. As the individual gradually develops new meanings and perspectives for the same perceptual data, his behavior changes accordingly, and one can say the individual has learned.¹⁶ Perhaps the realm of learning can best be presented by first reviewing the origins of the mental process.

To begin, the principle elements of the universe might be thought of as the particles and a central core of natural laws. Through time tested evolution, systems emerged from these origins and improved on their capacity to survive by becoming complex open systems. That is, the simplest macromolecular complexities became involved in higher level ones, and these in turn in still higher ones, until an entire hierarchy of order has come to exist.¹⁷ Perhaps the central strategy behind the evolution of these complex systems is that survival cannot be perpetuated infinitely until a given system can completely control its environment.

¹⁶James H. Myers and William H. Reynolds, Consumer Behavior and Marketing Management (Boston: Houghton Mifflin Company, 1967), p. 40.

¹⁷Clifford Grobstein, The Strategy of Life (San Francisco: W. H. Truman and Company, 1965), p. 4.

Thus, to respond adequately to the environment, these aggregates developed central coordinative systems which directed the system's activity as well as collected and interpreted information about their environment. Part of this knowledge was passed on from generation to generation by "genes" making some responses mostly instinctive. The further development of these coordinative systems added the capacity to simultaneously evaluate the relative success of a stimulus-response relationship. Where the response proved rewarding, it was stored in memory to be drawn out when similar circumstances arose. Man represents the pinnacle in the development of complex coordinative systems and possesses the potential to control his environment. Part of this evolutionary process can be seen in the fact that scientists have traced the evolution of the human brain with its thinking, learning and emotive powers over the centuries from 20 ounces to approximately three pounds of ionic matter.¹⁸

It is hypothesized that the origins of mental processes can be seen in the basic postulate of systems theory, i.e., all complex phenomena represent a hierarchy of structure which can be reduced to common denominators to coincide with the fundamental concepts of the universe (the laws and particles).

Further, the mind analyzes a given stimulus and associates a response with it. The response chosen is perceived as most likely to perpetuate the goal of self enhancement. If the response is deemed rewarding (reduces tension), then the response is filed in memory by

¹⁸George Russel Harrison, op. cit., p. 157.

again associating it with a basic concept which the response is most like. Mnemonics, or the art of memory, has long been based on this principle of association. Also, note that computer science utilizes the same technique in filing programs (patterned responses) in memory banks for recall under a standardized code number (stimulus). When a predesigned program is thought to provide the desired pattern of responses to solve a problem (derive meaning from a new situation), the code number for recalling the former program becomes part of the present process design.

Obviously then, for learning to take place, meaning must be achieved by associating a predictable response (or pattern of responses) with a stimulus (or pattern of stimuli). The general topic area of communication provides an all inclusive parameter for this process; its definition emphasizes the notion that it encompasses everything that imparts meaning.

There are several constructs in the realm of communication which are thought to convey meaning. These may be briefly described as: the "subject" which refers to an object of communication (a fire, a horse, etc.); a "symptom" which is part of a situation and indicates an event (a smile may be an indication of humor); a "sign" which is something that points to the direction of behavior (an arrow pointing to an elevator); a "symbol" which is associated with the meaning of another concept (a Scotsman may be used as a symbol of fugality); and finally a "signal" which is a construct in communication that conveys meaning as an integral part of a pattern of signals (a letter in the alphabet or a sound).

Homo sapiens have emulated nature in fashioning their own social coordinative systems out of linguistic communication which seeks to synchronize the synergistic effort within organizations. These organizations are developed to perpetuate man's desire to adapt to as well as exert some control over his environment. Thus, linguistic communication might be defined as the process by which an individual transmits stimuli to affect the behavior of other individuals.¹⁹ It might further be noted there are three things that are necessary for purposeful communication to take place: a source, a message, and a receiver. Both source and receiver must have goals--each must expect to receive some benefit if communication is to occur. However, since the goal of this form of communication is to affect behavior, language is frequently known to obscure meaning. Therefore, recipients of the message survey other elements of the circumstance to clarify meaning. Such phenomena as mannerisms, appearance, past experiences, and the context of the message are all cultivated to elucidate the true significance of the communique.

Meaning is achieved through this reasoning process by associating, implicitly or explicitly, a predictable response set with the stimuli set derived from the situation. The attitudes which develop from this circumstance may be defined as learned predispositions to respond to a given set of stimuli and reflect the degree to which the individual perceives the object contributes to his goal of self enhancement. Because attitudes are frequently formed simultaneously in the perception

¹⁹Gerald Zaltman, Marketing: Contributions from the Behavioral Sciences (New York: Harcourt, Brace and World, Inc., 1965), p. 103.

process with responses and are based on whatever information is available, they are often subject to high error content (variance) and readily change as further information is evaluated. Therefore, as the evaluation process continues in man's eternal search for meaning, the attitudes are shaken down and the error of response is reduced. Through this process, well-ingrained attitudes become beliefs.²⁰ As the beliefs are further put to the test of response fidelity concerning the goal toward self enhancement with further variance withdrawn, the beliefs converge into an image (concept) of organized "belief-attitudes." These well-ingrained attitudes or beliefs accurately represent the set of responses most appropriately associated with the object.

Perhaps an analogy from the physical sciences would be more illustrative of this process of imagery formation. Conceptualize light (attitudes) passing through a lens. As the light (attitudes) passes through the lens, its numerous waves are bent (simulating elimination of error variance to become beliefs) to converge into a pattern of waves which form a focus point at its vertex. This focus point represents a pattern of waves (organized pattern of attitudes) which form an image in both cases. All such images represent the ultimate in man's perceptual adjustment to his environment. Any concept, image, attitude, or response that the consumer has acquired has been the result of learning.²¹

²⁰James U. McNeal, Dimensions of Consumer Behavior (New York: Appleton-Century-Crofts, 1965), p. 11.

²¹William A. Yoell, loc. cit.

The most fundamental elements of the learning process are termed the motive (need and direction of behavior drive), the response, and the reinforcement. Learning occurs when a pattern of behavior (response) is initiated to reduce tension brought on by a motive. This, of course, assumes the behavior initiated reduces the tension thus reinforcing the pattern of response selected. Reinforcement can be seen to be based on the Law of Effect which was mentioned earlier. If the pattern is repeated a given number of times and continues to be reinforced, it becomes a habit. Such automatic conditioning renders the performance of certain activities below the level of conscious thought.

Thinking may be defined as any mental activity carried on by means of a symbolic or representative process. All thinking is based upon prior learning; hence, much thinking is actually a form of abstract learning.²² However, one negative relationship associated with the learning process is forgetting which is the process of erasing response patterns that are not reinforced. Perhaps Jost's Law can be used to illustrate how this phenomenon can be applied to marketing. Jost's Law states: If two associations are of equal strength but of different ages, the older one will lose strength more slowly than the newer one with the further passage of time. It would thus be expected that, other things being equal, older brands would require less frequent advertising to hold their share of the market than newer brands.²³

²²Gerald Zaltman, op. cit., p. 66.

²³James H. Myers and William H. Reynolds, op. cit., p. 57.

Once Homo sapiens begin to derive meaning through the learning process about the phenomena of their environment, they turn their attention to the important task of identifying who and what they are. This endeavor is usually referred to as the development of the self image which is discussed in the next section.

The Development of the Self Image

Heredity provides man with the physiological attributes necessary for survival and growth in his environment. These attributes include among other things one's mental capacity, stamina, appearance, and muscle frame which are important factors in his eternal struggle to secure and maintain a position in the social order of his environment. A person's unique individuality, therefore, can be seen as determined by his heredity as well as by his interactions with his habitat.²⁴

Human behavior itself seems so enormously varied, so delicately complex, so infinitely motivated, that many people despair of finding valid generalizations to explain and predict man's activity.²⁵ However, the goal of self enhancement, which incorporates the first and second level needs of man (survival and security), is posited to provide the central thread of thought for successfully unraveling the psychological complexities of man. This research can be thought of as a continuation of learning theory, which will involve illuminating the process of the development of the self image.

²⁴Kae Hoon Chung, Developing A Comprehensive Model of Motivation and Performance (Louisiana State University, unpublished dissertation, 1967), p. 23.

²⁵Bernard Berelson and Gary A. Steiner, op. cit., p. 3.

The Socialization Process

It appears that at birth the infant has no ability to differentiate between the external environment and what lies within his own body.²⁶ The conceptualization of self gradually becomes defined as the result of a long series of interactions between the child and the physical and social environment which provide for satisfaction of his needs.

The self is believed by most psychologists to be largely the product of social interaction (socialization), though this is not the only factor. The child learns from interacting with others what type of person he is and what he would like to be; he also learns what possibilities are open to him and what his abilities and shortcomings are.²⁷ It would seem that at this early stage of development the human entity is preparing for the time when he must independently establish a position in the social environment which will give him inner satisfaction.

Thus, the self image represents the organization of a pattern of well-ingrained attitudes toward the "self" which result from the individual's interaction with his social environment. These attitudes are associated with learned responses that reflect the degree to which the "self" is perceived to contribute to the individual's goal of self enhancement. Through the socialization process the individual perceives

²⁶Bernard Greenblatt, The Phenomenological Approach to Measurement of Self Concept a Study of Connotation as a Relevant Response Determiner (University of Oregon, unpublished dissertation, 1963), p. 14.

²⁷George A. Field, et. al., op. cit., p. 105.

society's consensus of his relative position (real self) in society. In other words, this process provides the individual with a social mirror of the self. If the individual's perceived position (real self) is below the position dictated by his goal of self enhancement, then to achieve homeostasis, the individual is motivated to set a position (aspired self) he desires to achieve that is congruent with the dictates of his goal of self enhancement. In either case, the goal of self enhancement represents the individual's drive to achieve and maintain a given position in his environment.

To date, the theory of self image is probably the best integrated thought on personality which is relevant to consumer motivation. This is reasoned because it nicely combines both the rational and emotional approaches into one unified concept and is equally applicable to non-buying behavior.²⁸ The human personality is shaped and social behavior is learned through the socialization process. The socialization process is seen to set the basic outlines for the individual's self concept.²⁹ As has been stressed before, attitudes toward the "self" establish the aspiration level which then becomes the basis for attitude formation toward the outer objects of the individual's environment. A shift in aspiration level naturally requires a shift in one's perception of his environment also. Whatever is the case, man's responses can be expected

²⁸Richard H. Buskirk, Principles of Marketing: The Management View (New York: Holt, Rinehart and Winston, 1961), p. 178.

²⁹Daniel Katz, "The Functional Approach to the Study of Attitudes," Readings in Attitude Theory and Measurement, Edited by Martin Fishbein (New York: John Wiley and Sons, Inc., 1967), p. 463.

to seek the path of least resistance to the goal of self enhancement within the confines of acceptable behavior.

This socialization process does not stop with childhood; it continues throughout life as the individual is constantly initiated into new groups. The central purpose of the socialization process is control or conformity to the values and norms of the patron group. Only with consistency of behavior can the group expect to perpetuate its influence in achieving the needs of its members through synergistic effort.

This socialization process which builds group values into the individual is generally the function of primary groups such as the family and childhood peer group. Primary groups are generally closely knit, structured, face to face, small groups. They instill the norms and mores of the society into the member. The child's training within the family lies within the framework of the family's social class and continues to influence him to some extent in his age-mate relationships by an encouragement of friendships among children from the right families.³⁰ It is interesting to note, however, that in early childhood, there appears to be little awareness of differences in social and economic status. Friends are chosen primarily for individual qualities instead of social class, wealth, or family tradition. However, as the child grows older, his class attitudes develop as a result of his parents' influence, and he becomes

³⁰Philip R. Cateora, An Analysis of the Teen Age Market (University of Texas, Bureau of Business Research, 1963), p. 27.

increasingly aware of the importance of cultivating friends his parents consider socially acceptable.³¹

The child, also, receives those values of his peer group within the school, which serves as a setting for peer group experience and interaction. Here the child is exposed to the values and goals of different social levels and to the pressures of peer group uniformity.

At one stage of development or another, it would seem the child may find himself perplexed as to which dictates to follow--his parents or peer group. At birth and throughout adolescence, the child is naturally dependent on the parent for his needs and remains a satellite within the parents' field of influence. As the youth matures, becoming more independent, he can be thought of as moving farther away within the spectrum of his parents' influence to become attracted by the gravitational field of the peer group. The peer group is thought to provide for the primary social contact outside the family circle. When problems arise which seem to be contradictory to the wishes of one of these influence groups, the adolescent might be expected to reflect the attitudes of his parents and their related social class in those matters which would not be in direct conflict with adolescent or peer group culture. And, in those cases where the matter under consideration was of importance to the group, the youngster would respect the dictates of his age-mates. Thus, it can be noted that some phases of teenage behavior are extremely faddish. Quite often from the adult viewpoint these adolescences' behavior would seem to be nonsensical;

³¹Frieda Kiefer Merry and Ralph Vochers Merry, The First Two Decades of Life (New York: Harper and Brothers, 1950), p. 390.

but on many basic issues, teenage attitudes may be a source of hope to the despairing parent. Thus, the adolescent can be seen maneuvering on a tight rope between the dictates of the parent and peer group. The parent generally seems predominantly concerned with the need to establish social position while the peer group seeks conformity of behavior to the social norms of their clique.

Intensive socialization in later life might override family influences to a marked degree. But the primary family influences, that of the need to achieve a position in society, would still serve as a frame of reference for the individual.³² It is reasonably clear that the need to achieve a position in society after reaching independence from the family is composed of well-ingrained attitudes for most individuals. Research shows that every human being earnestly seeks a secure, friendly, and supportive relationship that gives him a sense of personal worth in the social groups which are important to him.³³ It is this concept which forms the basis of social stratification in our society.

Class Stratification

Society might be thought of as being represented by a normal curve which results from the relatively high class mobility prevalent in our culture. The base of this normal curve may be seen to represent a continuum of social mobility with the relatively static nature of

³²Philip R. Cateora, op. cit., p. 26.

³³Rensis Likert, "Motivation: The Core of Management," Readings in Management, Edited by Harold Koontz and Cyril O'Donnell (New York: McGraw-Hill Book Company, Inc., 1959), p. 267.

low mobile individuals anchoring the one end and the dynamic nature of high mobile people representing the other end. The basic difference in this dichotomy of social strata may be that low mobiles reach a state of relative fulfillment at the primary needs level while high mobiles continue to be motivated by the need for higher levels of social security.

To derive further meaning from this social curve, market researchers have dissected it into numerous segments. Perhaps the most popular anatomy is presented by Lloyd Warner and Paul Lunt who described a six-class system: the upper-upper, or old families; lower-upper, or the newly arrived; upper-middle, mostly the professionals and successful businessmen; lower-middle, or the white collar salaried class; upper-lower, or wage earner, skilled worker group; and lower-lower, or the unskilled labor group. However, some critics in the social sciences have held that, since Warner's thesis rested essentially on studies of smaller cities in the 10,000-25,000 class, the same system might not hold in larger metropolitan areas.³⁴

It seems probable that social class consciousness is a carryover from the dominance orders found among all primates and which dates back to pre-historic times.³⁵ Dominance orders epitomize the case where a more dominant animal takes precedence over another animal in access to

³⁴Pierre Martineau, "Social Classes and Spending Behavior," Marketing Insights: Selected Readings, Edited by R. Clifton Andersen and Philip R. Cateora (New York: Appleton-Century-Crofts, 1963), p. 122.

³⁵John Paul Scott, Animal Behavior (New York: Doubleday and Company, Inc., 1963), p. 186.

food and a mate.³⁶ Usually this "pecking order" is established and maintained among animals through combat. This does not seem too distant from conditions in modern society where individuals strive to assert their dominance or superiority through the economic contest. Darwin has captioned this process of natural selection, "survival of the fittest," which seems applicable to modern societies. It is generally conceded that as long as there is class mobility with no suppression of minority groups, such a process of competitive achievement is beneficial to societies seeking higher standards of living.

Thus, social stratification means any system of ranked statuses by which all the members of a society are placed in a hierarchy of order ranging from relatively low mobile people to relatively high mobile individuals. This social hierarchy takes on significant importance when one is reminded that the basis for the goal of self enhancement necessitates an individual achieve and maintain a position in society to minimize the tension of his inner state. The key point to remember is that the mind continually requires evidence of who and what it is. It is insufficient that one is in fact highly successful if there is little or no evidence of success which can be perceived by oneself or others.³⁷

It is important to many people to constantly evaluate their relative social position in relation to other individuals and reference groups. A central trend of thought which supports the need for

³⁶P. L. Broadhurst, The Science of Animal Behavior (Baltimore: Penguin Books, 1963), p. 84.

³⁷Richard H. Buskirk, op. cit., p. 179.

identity with a position in society is that this position is frequently correlated with an individual's contribution to the social goals of his culture. The more one contributes, the higher status he is thought to enjoy. Thus, because society's need for the individual's services are greater relative to lower status people, the high status individual is thought to have greater social security resulting from the influence of his position. Since a given individual's contribution is often difficult to estimate, society has frequently equated one's worth to the immediate culture with the consumption power (income) he possesses in the market place. Thus, income has often been correlated with one's position (status) in society.

Marketers have long studied the relationship of income to consumption patterns. In the late nineteenth century, Thorstein Veblen in his work, Theory of the Leisure Class, observed people tend to use their financial surplus so as to impress other people with the fact that they have a surplus.³⁸ Later research showed Veblen's contention, that conspicuous expenditure is largely applied to the upper class solely, was erroneous. Conspicuous consumption runs all the way through our social system.³⁹ In the same century an English economist, Ernst Engel, generally supported the above proposition with research that has become known as Engel's Law. Simply stated it says, "That

³⁸Thorstein Veblen, "Conspicuous Consumption," Marketing Management and Administrative Action, Edited by Stewart Henderson Britt and Harper W. Boyd, Jr. (New York: McGraw-Hill Book Company, 1963), p. 36.

³⁹Pierre Martineau, "Social Classes and Spending Behavior," Marketing Insights: Selected Readings, Edited by R. Clifton Andersen and Philip R. Cateora (New York: Appleton-Century-Crofts, 1963), p. 124.

as income increases, expenditures for necessities decline as a percentage total of expenditures."⁴⁰

Thus, it would seem the achievement of an individual's goals in many spheres of life depends upon a person's success in the economic contest. However, this concept is slowly eroding, for social class today is only partly related to family income. This can be seen in the fact that a long period of high wages has boosted the blue collar worker's wages to remarkably high levels. Certainly the \$8,000 a year laundry truck driver can be expected to have a way of life much different from the \$8,000 teacher or professional man.⁴¹

While income at one time was widely used as an indication of one's social class, a richer dimension of meaning is evolving to determine status and includes such factors as: occupation, education, home, neighborhood and other related patterns of consumption. This emphasis on utilizing the total picture has magnified the importance of the self image.

It has been stressed earlier that linguistic communication evolved for the purpose of affecting behavior. To achieve this end, meaning frequently is obscured by language. With this vital observation in mind, people must look for other symbols surrounding the circumstance to clarify meaning. Thus, Homo sapiens have learned to surround

⁴⁰George Fisk, op. cit., p. 18.

⁴¹Martin Zober, Marketing Management (New York: John Wiley and Sons, Inc., 1964), p. 361.

themselves with symbols of status to demonstrate who and what they are.⁴² These symbols are thought to be congruent with the individual's self concept, i.e., they complement the characteristics of the self concept as well as give external meaning. For example, people buy a Cadillac not only because it is a well-crafted car, but, also, to symbolize they are wealthy and successful. Therefore, this symbol is far more meaningful to people than to merely tell them you are rich and successful. Perhaps Ruth Mach of the National Bureau of Economic Research presents this idea more succinctly in the following quote:

In twentieth century America, virtually everything that influences what a person is and how he got that way--a process of constant interaction between the evolving individual and his social field--influences what and when and how much he buys or saves and indeed in part how much he makes. Currently, his buying is a function of what he is, and what he has, the recent history of his purchases, what others have or buy, what he expects, what he hopes, the habits that he has established and very nearly everything else. The dynamics of consumption is in our society coextensive with the dynamics of personality.⁴³

Thus, broader and more meaningful marketing concepts see a product no longer only in terms of its utilitarian purpose, but also as a symbol by virtue of its form, size and color, and its psychological and social function. A product now is being viewed broadly as a composite image of everything people associate with it.⁴⁴ Modern goods

⁴²Pierre Martineau, "Social Classes and Spending Behavior," Theories for Marketing Systems Analysis, Edited by George Fisk and Donald F. Dixon (New York: Harper and Row Publishers, 1967), p. 37.

⁴³C. Hartley Grattan, "The Complex World of the Consumer," Managerial Marketing: Perspectives and Viewpoints, Edited by William Lazar and Eugene J. Kelly (Homewood, Illinois: Richard D. Irwin, Inc., 1965), p. 126.

⁴⁴Joseph W. Newman, "Why You Buy," Marketing Insights: Selected Readings, Edited by R. Clifton Andersen and Philip R. Cateora (New York: Appleton-Century-Crofts, 1963), p. 161.

are recognized as psychological things, as symbolic of personal attributes and goals, as symbolic of social aspirations and position. In this sense, all commercial objects have a symbolic character, and making a purchase involves an assessment--implicitly or explicitly--of this symbolism in matching the properties of "self" with the product characteristics in reflecting an accurate self image to society.⁴⁵ If the characteristics of the product image and self image are congruent and the individual feels a need for the product, he will expend energy (capital and labor) to acquire the product.⁴⁶ However, if the product is later found not congruent with the self image, disharmony sets in and a condition prevails which Festinger (1957) terms cognitive dissonance. According to Festinger, cognitive dissonance results when an individual is confronted with two (or more) bits of information (cognitions) about himself, his behavior, or his surroundings, that are inharmonious, inconsistent, or discrepant from one another.⁴⁷ In reference to the post purchase of a product, the individual who feels disharmony over his purchase has two courses of action he can take to reestablish harmony. First, he may seek out information to bring the product's image in line with his expectations while suppressing any further negative information about the product. Second, he can merely exchange or return the merchandise for another item which is perceived

⁴⁵Sidney J. Levy, "Symbols by Which We Buy," Dimensions of Consumer Behavior, Edited by James U. McNeal (New York: Appleton-Century-Crofts, 1965), p. 59.

⁴⁶George A. Field, et. al., op. cit., p. 106.

⁴⁷Richard Carroll Nicheson, Five Approaches to Reducing Cognitive Dissonance in the Self Concept (St. Louis University, Unpublished Dissertation, 1964), p. 1.

to be more congruent with his self image.⁴⁸

If the symbolism of a product is appropriate, then the product will be used and enjoyed when it synchronizes with and reinforces the way the consumer thinks about himself. In the broadest sense, each person aims to enhance his sense of self, to behave in ways that are consistent with a set of attitudes, or self image, he has about the kind of person he is or wants to be.⁴⁹

These sets of ideas, feelings, and attitudes that consumers have about the image of a product (symbolic meaning) are crucial to them in selecting the product most appropriate for them. The purchase of many products is simply incompatible with some individuals' self concepts. Consider the landmark motivation study concerning the purchase of instant coffee. This study discovered that one of the big barriers to women's use of instant coffee was that they considered its purchase incompatible with their concept of themselves as diligent housewives and good cooks. It was found that many women considered the user of instant coffee rather lazy and wasteful.⁵⁰ Another classic example of faulty imagery concerned the fate of the Edsel automobile. Market researchers finally concluded that the reason for the low public acceptance of this model was its vague public image. That is, few people could identify with the image of the Edsel.⁵¹

⁴⁸Leon Festinger, "Cognitive Dissonance," Marketing in Progress Patterns and Potentials, Edited by H. C. Barksdale (New York: Holt, Rinehart and Winston, Inc., 1964), p. 373.

⁴⁹Sidney J. Levy, loc. cit.

⁵⁰Richard H. Buskirk, op. cit., p. 180.

⁵¹Ibid.

The product image, as a source of meaning, helps the consumer further to select and organize the stimulations of the product, promotion appeals, and other communications directed to him.⁵² Consider for instance the importance of color dynamics as an integral part of the product image. By studying the symbolic meaning in product imagery, some market research analysts have found that status conscious consumers generally perceive that darker colors are symbolic of more "respectable" products; that pastel colors mean softness, youthfulness, femininity; that yellows and browns are manly; that red is exciting and provocative.⁵³ A similar study conducted by a New York industrial designer, analyzed the significance of the color schemes of mid-western gasoline companies. It was found the symbolism customers associated with a company's color scheme played a significant role in their patronization of these service stations. That is, a dark color scheme cast an aura of dirtiness over stations while lighter, brighter colors generally had the opposite effect.⁵⁴

Products are also thought to increase or decrease in their relative position as a status symbol. Possibly as a result of a more equalized wage scale, plus the accessibility of relatively easy credit, the

⁵²Irving S. White, "The Functions of Advertising in Our Culture," Marketing Insights: Selected Readings, Edited by R. Clifton Andersen and Philip R. Cateora (New York: Appleton-Century-Crofts, 1963), p. 309.

⁵³Sidney J. Levy, op. cit., p. 60.

⁵⁴Pierre Martineau, "The Personality of the Retail Store," Marketing Insights: Selected Readings, Edited by R. Clifton Andersen and Philip R. Cateora (New York: Appleton-Century-Crofts, 1963), p. 289.

automobile may have already been replaced by the house and its furnishings as a major status symbol.⁵⁵ Thus, once the marketer gets accustomed to viewing his product as a bundle of satisfactions (primary and secondary), he will be able to view his product more completely. Perhaps the future indicators of social class will be found not so much in income and education statistics, which are becoming more equalized as our society achieves higher standards of living, but rather in consumption patterns which seem to be growing in popularity as class predictors.⁵⁶

Earlier discussion described a social continuum which ranged from low mobile individuals who are thought to be relatively satisfied at the primary need level to high mobile people who continue to be motivated by the desire to satisfy secondary social needs. Unlike economists who assume a rich man is simply a poor man with more money;⁵⁷ marketers observe that within modern societies, membership in higher strata of society is accompanied by strong pressure to acquire and display certain products which identify one's association with this position.⁵⁸ Pierre Martineau in his work concerning social class and spending behavior seems to support this idea. Martineau stresses non-mobile people tend to be oriented more toward the pole of the accumulation of money.

⁵⁵Richard R. Still and Edward W. Cundiff, Essentials of Marketing (New Jersey: Prentice-Hall, Inc., 1966), p. 27.

⁵⁶William J. Stanton, Fundamentals of Marketing (New York: McGraw-Hill Book Company, 1964), p. 114.

⁵⁷Pierre Martineau, "Social Classes and Spending Behavior," Marketing Insights: Selected Readings, Edited by R. Clifton Andersen and Philip R. Cateora (New York: Appleton-Century-Crofts, 1963), p. 122.

⁵⁸Alfred R. Oxenfeldt, op. cit., p. 75.

Purchases, then, are rationalized in terms of the savings involved. The basic thesis here is the non-mobile individual is relatively satisfied at the basic need level and would emphasize saving to insure the continued satisfaction of basic needs while the behavior of the mobile individual who continues to be motivated by secondary social needs is characterized by spending for various status symbols of upward movement.⁵⁹

The suggestion here is that perhaps the attitudes that individuals manifest toward the relative importance of the social environment in the achievement of their goal toward self enhancement are major indicators of what consumption patterns might be expected of them. For instance, Pierre Martineau presents evidence of the diverse psychological viewpoints of two social classes toward their environment. It follows that at the base of these psychological viewpoints are a distinct difference in attitudes concerning the social environment. These lists follow:

Middle Class

1. Pointed to the future
2. His viewpoint embraces a long expanse of time
3. More urban identification
4. Stresses rationality
5. Has a well-structured sense of the universe
6. Horizons vastly extended or not limited
7. Greater sense of choice making
8. Self confident, willing to take risks
9. Immaterial and abstract in his thinking
10. Sees himself tied to national happenings

⁵⁹Pierre Martineau, "Social Classes and Spending Behavior," Marketing Insights: Selected Readings, Edited by R. Clifton Andersen and Philip R. Gateora (New York: Appleton-Century-Crofts, 1963), p. 125.

Lower Class

1. Pointed to the present and past
2. Lives and thinks in a short expanse of time
3. More rural in identification
4. Non-rational essentially
5. Vague and unclear structuring of the world
6. Horizons sharply defined and limited
7. Limited sense of choice-making
8. Very much concerned with security and insecurity
9. Concrete and perceptive in his thinking
10. World revolves around his family and body⁶⁰

Perhaps the prime significance of social stratification is that it presents a basis for product differentiation and market segmentation.

Market Segmentation

Market segmentation is based on the generally true concept that the market for a product is not homogeneous as to its needs and wants. Textbooks define a market segment as any subsection of a total market that is worth cultivating and is based on the strategy of dividing markets in order to conquer them.⁶¹

Generally individuals in a particular social stratum tend to own and consume more or less the same kind of goods and services.⁶² Such conformity of behavior emphasizes their desire to be associated with this social stratum. They accomplish this aspiration by aligning their attitudes as well as their consumption patterns by purchasing symbols of this social position, so that they do not stand out as deviants.

Perhaps, among other things, this fact has lead Richard Reiser, Executive Director of the Market Research Department of Grey Advertising

⁶⁰Ibid., p. 132.

⁶¹ Stewart Henderson Britt and Harper W. Boyd, Jr., op. cit., p. 86.

⁶² Martin L. Bell, op. cit., p. 196.

to assert, "The best way to determine market segments is to study shared consumer attitudes."⁶³ Based on peoples' shared attitudes, many individuals react in more or less the same way which gives the appearance of uniform group behavior. The economics of mass production and consumption require us to group batches of like, or nearly like, individuals together and to present them with reasonably uniform offerings.

In sum, market segmentation refers to the analysis of a total market in terms of its component segments, each of which is made up of a group of buyers who share common characteristics as consumers. Whereas, a total market is composed of a heterogeneous group of buyers, a market segment is composed of a group of buyers who are homogeneous from the marketing standpoint.⁶⁴ Although no two people are wholly alike, many often have the same pattern of desires. People may be grouped by age, race, religion, incomes, education, and attitudinal sets which frequently represent homogeneous patterns of consumption.⁶⁵ That is, consumer choices of goods may fall into patterns based on these groupings. Consequently, such groupings are often used as criteria for segmentation into markets for differentiated products.

Given that markets represent heterogeneous groups of people with similar demographic characteristics and attitudinal sets used in

⁶³Richard Reiser, "Shared Consumer Attitudes are Key to Segmenting Markets," Advertising Age, Vol. 37, No. 51 (December 19, 1966), p. 1.

⁶⁴Richard R. Still and Edward W. Cundiff, op. cit., p. 7.

⁶⁵Richard Reiser, loc. cit.

segmenting these submarkets, some basis for predicting buying behavior should be proposed to further illustrate the process of consumer motivation. Therefore, a predictive model of consumer behavior will be constructed next to further demonstrate the practical relevance of these psychological factors to each other in the marketing arena.

A Predictive Model of Consumer Behavior

It is intended in this section to discuss the ramifications of a predictive model of consumer behavior which is proposed to shed additional light on the unique nature of consumption in the market place. Figure 5 in Chapter II will serve as a reference in the development of this model. Again, the method for developing this model will utilize the technique of analogy in drawing on the pertinent information necessary to develop this concept. Perhaps a quote from Mihozlo D. Mesarovic's work, Foundations for a General Systems Theory, will provide an enlightening insight into the underlying philosophy in utilizing this approach. The quote follows:

An equivalence relation is established between two systems (either of the systems may be real or conceptual). The equivalence relation indicates that aspects of the behavior of the two systems which are the same. One can then make certain inferences about the behavior (or perhaps some relevant aspect of it) of one system from the study and observation of the other. The selection of the system to be studied is based on practical consideration; namely, the system on which the observations are to be made is selected so as to be simpler than the actual system in all respects not related by the established equivalence. The system used in the investigation is then called a model.⁶⁶

⁶⁶Mihozlo D. Mesarovic, "Foundations for a General Systems Theory," Views on General Systems Theory, Edited by Mihozlo D. Mesarovic (New York: John Wiley and Sons, Inc., 1964), p. 2.

Herewith, the dry cell system in Figure 5(a) will be analogized to represent the process of motivation concerning a single consumer in the market place. The operation of the simple dry cell, electro-magnetic system, may be thought of as parallel in scope to the operation of the self concept of an individual. It should be observed that the goal of self enhancement sets the dimensions of the self concept. Thus, the principle upon which both systems operate may be thought of as the need to reduce tension in reestablishing equilibrium or homeostasis. For instance, the dry cell reacts to a state of disequilibrium when the chemical reaction from the sal ammoniac and related substances set up a state of tension by charging the zinc cathode negatively and the carbon anode positively. Since opposite charges attract, a state of tension exists within the dry cell. By utilizing a conductor, work can be accomplished by connecting a conductor to and from the electro-magnet as well as being attached to both poles of the dry cell. The work is achieved when the electrons flow (energy transformation or motivation) from the cathode through the electro magnet (work load) to be neutralized (satisfied) by the positive charge (reward) of the anode.

The operation of motivation concerning a given consumer's self concept (identifying characteristics of an individual) is not unlike the process of energy transformation in a dry cell, electro-magnetic system. In other words, through the socialization process (similar to interaction of electrolyte with anode and cathode), a given consumer may perceive he is deficient in certain characteristics which would achieve or maintain homeostasis in his environment through the

manifestations of his self concept. This state of disequilibrium in the social system is similar to the corollary state of tension in the physical system. In the case of the social entity, he can be expected to survey his environment for those characteristics which may reduce the present state of tension. The consumer, of course, will seek these characteristics in the market place. These properties can be found in products which satisfy primary and/or secondary needs. Thus, primary levels of satisfaction are associated with survival needs, and secondary levels of satisfaction are associated with social needs which are frequently symbolic of one's position in society. It is, therefore, little wonder that some marketers conceptualize products as "bundles of satisfaction."

Once the consumer perceives a certain set of product characteristics will complement his self concept, an environment for consumer motivation is established. The consumer then mobilizes (transforms) energy (capital and labor), sending it through the medium (conductor) of the marketing environment (form, time, place and possession utility) for each product to pass through the work load (magnet or self concept "figuratively speaking") which functions by lining up its domains (positive attitudes) to attract (purchase) the object (product) in order to neutralize or reduce (satisfy) the state of tension inherent in the system. However, if the cost of a product (resistance of conductor analogized with marketing environment for a given product) is too high, consumer energy will not flow, unless another product with lower marketing environmental costs can be found to adequately substitute in replenishing the self concept's characteristics perceived as deficient by the consumer.

It can be seen by reviewing the aggregate model of consumer activity in Chapter II (Figure 5) that high resistance found in the marketing system (aggregate marketing environments for all products) will severely reduce the energy flow into the market place (representative of the aggregate of self concepts) which will subsequently deflate the prosperity (productivity) of the economy.

There has been some significant research concerning the critical parameters (need, resistance and attitudes) included in this hypothetical model. The following sections will provide a brief discussion of this research.

Need and Resistance Studies

Economics Professor, Warren J. Bilkey, of the University of Notre Dame has discussed a vector analysis that suggests the purchasing act involves psychic conflict--represented by force vectors--between the person's desire for the item in question and his self-imposed resistance against spending the money that the item costs. If the individual's desire for that product or service exceeds his resistance regarding it, he will tend to purchase it and vice versa. The greater the excess of desire over resistance, the greater the probability that the item will be purchased. However, the converse would hold where there is the excess of resistance over desire resulting in a high probability that the item will not be purchased.⁶⁷

⁶⁷Warren J. Bilkey, "Consumer Behavior: Disbursements and Welfare," Science in Marketing, Edited by George Schwartz (New York: John Wiley and Sons, Inc., 1965), p. 144.

To test the usefulness of this concept in a marketing situation, Bilkey asked 63 families in Connecticut to keep a diary of food purchases for one year. At intervals during this time, each family purchasing head was asked to indicate on a rating scale his or her strength of feeling about certain types of purchases.

1. How strong is your desire for the item?
2. How strong is your desire to avoid the expense which the item might entail?

Ratings could range from 0 to 100. One respondent, for example, had a "50" desire for a new car but a "75" desire to avoid the expense. (This particular respondent did not buy a car during the year.) The positive and negative expressions were averaged to produce a "net valence" for the item in question. Positive valences presumably showed that the respondent was favorable on balance toward the item, negative valences the opposite. When these net valences or tension for food expenditures were related to actual food expenditures, there was a fairly close correlation between the two ($r = .76$) for a period of one year.⁶⁸

The results of this study indicate that there is a quantitative relationship between peoples' stated psychic tensions (need and resistance) regarding the purchase of particular items and their expenditures for those items. The additional fact that these stated psychic tensions for food were found to relate to considerations (the interviewees' standard of living, their level of uncommitted cash balances, and price changes) which economists have found by independent analysis

⁶⁸James H. Myers and William H. Reynolds, op. cit., p. 108.

to have an influence on consumer buying indicates that the interviewees stated psychic tensions tend to conform reasonably well with their actual tensions.⁶⁹ Another experiment concerning the purchase of new automobiles confirmed the above conclusion that need and resistance factors considered as psychic tensions could be utilized to predict purchasing behavior.⁷⁰

Perhaps past history bears witness to the soundness of these concepts. Henry Ford, who was thought more of as a marketing genius than a mechanical wizard, recognized the merits of reducing the cost resistance to open the market of cars to the public in the early twentieth century. His strategy was simple--cut prices, expand output, then cut prices again to tap new layers of demand. This procedure adheres to the above concepts--people evaluate what their needs are; and when the resistance cost reaches a point where need tension surpasses the resistance, consumers' energy (capital and labor) flow into the market place through the purchase of the item,

To illustrate that Ford carried out his strategies, in 1909 Ford sold 12,292 cars at \$950 each. By 1916, he was selling 500,000 cars at roughly \$440 each.⁷¹

⁶⁹Warren J. Bilkey, "Psychic Tensions and Purchasing Behavior," The Journal of Social Psychology, Vol. 41 (December, 1955), p. 255.

⁷⁰Warren J. Bilkey, "Consumer Behavior: Disbursements and Welfare," Science in Marketing, Edited by George Schwartz (New York: John Wiley and Sons, Inc., 1965), p. 145.

⁷¹Walter Adams, "Consumer Needs and Consumer Sovereignty in the American Economy," Marketing in Progress Patterns and Potentials, Edited by H. C. Barksdale (New York: Holt, Rinehart and Winston, Inc., 1964), p. 15.

Thus, assuming there is a need for a given product, it frequently proves to be a prudent strategy to lower resistance (cost) to tap new layers of demand wherever possible in the market place. This model, however, is not complete without a discussion of the role of attitudes in directing the flow of this psychic energy toward a specific object.

The Nature of Attitudes

The concept of attitude is probably one of the most distinctive and indispensable concepts in contemporary social science. The term is derived from the Latin word, Aptus, and connotes a dichotomy of meaning, i.e., on the one hand "fitness or adaptedness" and on the other "aptitude," a subjective or mental state of preparation for action.⁷² In this text, attitudes have been defined as a learned predisposition to respond which reflects the degree to which an individual perceives an object contributes to his goal of self enhancement.

In recent years there has been a noticeable decline of interest in the measurement of intelligence and an increase of interest in the measurement of attitudes.⁷³ Perhaps this has to do with the relative failure of several studies to show there is a high correlation between intelligence and achievement scores and job success concerning the large middle range of testees.⁷⁴ Since these factors were not found to

⁷²Gordon W. Allport, "Attitudes," Readings in Attitude Theory and Measurement, Edited by Martin Fishbein (New York: John Wiley and Sons, Inc., 1967), p. 3.

⁷³Ibid., p. 9.

⁷⁴See: Albert Porter, "Intelligence Test Scores as a Predictor of Executive Success," The Journal of Business (January, 1963), p. 65, and Rollin H. Simonds, "College Majors, Grades vs. Business Success," Business Topics, Vol. 14 (Autumn 1966), p. 7.

have high predictability of behavior, additional attention has been shifted to attitude research in the hope this area will provide a firmer foundation for developing intelligence on techniques for predicting consumer behavior.

But after more than seventy-five years of attitude research, there is little consistent evidence supporting the hypothesis that knowledge of an individual's attitude toward some object is an absolute predictor of an individual's behavior with respect to the object. In other words, more often than not, researchers have attempted to predict some behavior from some measure of attitude and found little or no relationship between these variables at the time of the research.⁷⁵ Frequently, a behavior is investigated because the experimenter assumes that it should be a function of attitude, and then he is often dismayed to find that his measure of attitude failed to predict the behavior.⁷⁶ The suggestion here is that other variables such as need and resistance are perhaps as important as attitudes in predicting the consumption behavior of an individual concerning a given product.

A study by the National Broadcasting Company demonstrates the proposition that attitudes are just one of several variables that should be analyzed if predictability of behavior is to be achieved. In this study attitudes toward Scotties tissue improved from 16 per cent to 42 per cent under the influence of television, but the criterion

⁷⁵ Martin Fishbein, "Attitude and the Prediction of Behavior," Readings in Attitude Theory and Measurement, Edited by Martin Fishbein (New York: John Wiley and Sons, Inc., 1967), p. 477.

⁷⁶ Ibid., p. 483.

behavior--consumption--increased only from 15 per cent to 35 per cent.⁷⁷ Here attitudes changed significantly more toward the referent object than did overt purchasing behavior. It is plausible to assume there are other constraints on behavior such as need and cost resistance which may account for the difference in results and expectations.

Therefore, it is proposed that attitudes should not be viewed so much as absolute predictors of behavior but rather as indicators of the direction behavior will take once action is initiated. The need (tension) for an object must be aroused to sufficiently overcome the cost resistance to its purchase. Once sufficient energy is mobilized to overcome this resistance, then the directional factors of attitudes indicate which product is most likely to be purchased.

Figure 7 is presented to illustrate the directional features of attitudes more clearly. The operation of attitudes in social systems have been analogized as similar in operation to a magnet in a physical (electric) system. In Figure 7, part (a) represents the random order of domains (or attitudes of a consumer concerning a given object) in an unmagnetized section of metal. These attitudes might be seen as neutral toward a product. That is, each of the characteristics of a product such as color, price, size, style, function, etc., perceived by a consumer can be thought to manifest an attitude concerning the degree to which this characteristic may contribute to the consumer's goal of self enhancement. When the consumer's attitudes toward the

⁷⁷John A. Howard, Marketing Management: Analysis and Planning (Homewood, Illinois: Richard D. Irwin, Inc., 1963), p. 51.

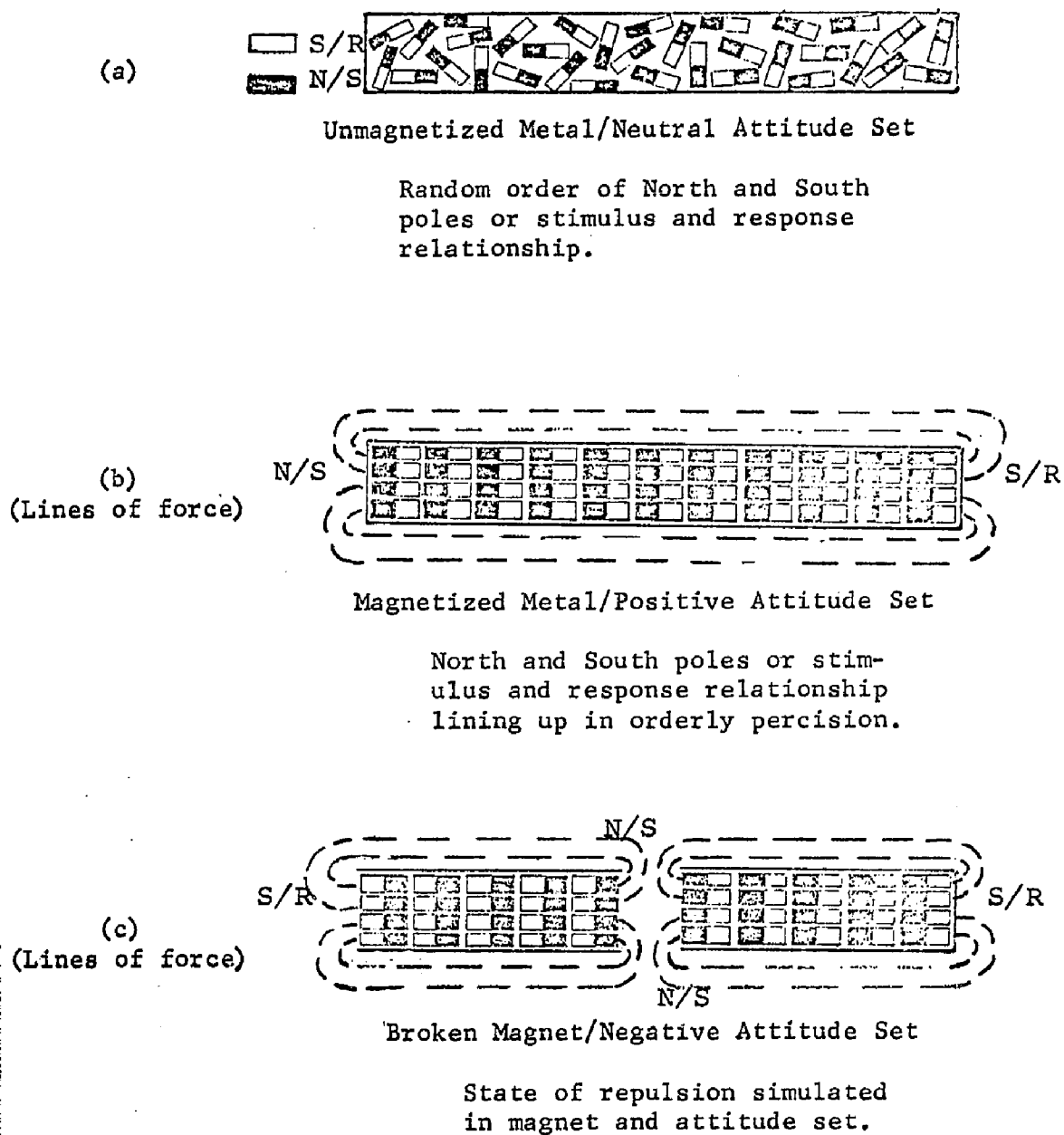


Figure 7: The Comparison of Magnetized Metal to Attitude Sets in Neutral, Positive and Negative States

various characteristics of the product are mixed (in random order), the aggregate attitude toward the purchase of the product may be thought of as neutral.

In part (b) the domains of magnetized metals (attitudes) line up in a rank and file order of a north, south (stimulus, response) relationship. By substituting the words north and south for stimulus (N/S) and response (S/R), one can conceptualize the directional nature which attitudes take in reflecting the degree to which the characteristics of a product are perceived by a consumer to contribute to his goal of self enhancement. In part (c) like poles facing each other represent the operation of negative attitudes which repel the product characteristics as detrimental to the self concept thus adversely affecting the goal of self enhancement.

Such an analogy suggests that attitudes are just one of the paramount factors in purchasing behavior. The value of determining what product(s) or object(s) attitudes are found to be positive toward, indicates in what direction behavior will take when it is motivated. Thus, attitudes are indicators of the direction behavior might be expected to take. However, to infer prediction of behavior, the element of timing must be included to specify exactly when purchasing behavior will take place. To achieve this, numerous factors must be taken into consideration, some of which have been mentioned above. The marketer should be cognizant of the significance of knowing when attitudes are positively aligned to a product. It is then paramount that their advertising and promotional programs boost need tension for the product to surpass the cost resistance factor.

Marketing research has devised several methods for measuring (positive, neutral, negative) attitudes. These procedures will be included in the following section.

Methods for Measuring Attitudes

The methods most popular among market researchers in measuring attitudes will be enumerated below along with brief descriptions of the techniques. These techniques are as follows:

1. Method of summated ratings (Likert type scale)
2. Scalogram analysis (Gutman scale)
3. Latent structure analysis (Lazarsfeld)
4. Judgment methods (Thurstone)
5. Semantic differential (Osgood)
6. Thematic apperception test

1. Method of Summated Ratings. The method of summated ratings calls for a collection of statements of opinion edited to meet prescribed standards. Once these statements are formulated, subjects are asked to respond to each of the items indicating with a one to five scale of response of relative agreement or disagreement. A score is given each item in accordance with the response made.⁷⁸

2. Scalogram Analysis. This procedure is based upon the idea that items can be arranged in an order such that an individual who responds positively to a given item also responds positively to all

⁷⁸Allen L. Edwards and Kathryn Claire Kenney, "A Comparison of the Thurstone and Likert Techniques of Attitude Scale Construction," Readings in Attitude Theory and Measurement, Edited by Martin Fishbein (New York: John Wiley and Sons, Inc., 1967), p. 250.

other items having a lower rank. In developing an attitude scale, a number of monotone items about the attitude object are formulated, the set of items is administered to a group of subjects, and their response patterns are analyzed to determine whether or not they are scalable. Thus, if the individual responds positively to a given item as well as all items of a lower rank, the items are said to be scalable.⁷⁹

3. Latent Structure Analysis. This technique assumes an unidimensional attitude continuum along which persons are distributed according to some unknown probability distribution. Statements about the object of the attitude are formulated and administered to a group of individuals with the idea of using the obtained responses to say something about the underlying attitude continuum. It is assumed that the items are intercorrelated only because of their common correlation with the underlying attitude variable. Using these assumptions, a general latent structure model is developed that is applicable to any manifest variable.⁸⁰

4. Judgment Methods. In the judgment method, a large number of categories are spaced along a favorableness continuum. However, there is no assumption regarding the relative distances between categories. In fact, the mathematical model treats the categories as continuous segments of the attitude continuum, separated by boundaries.⁸¹ The scoring values for all these scales are determined by combining the

⁷⁹ Marvin E. Shaw and Jack M. Wright, Scales for the Measurement of Attitudes (New York: McGraw-Hill Book Company, 1967), p. 25.

⁸⁰ Ibid., p. 29.

⁸¹ Ibid., p. 23.

efforts of many judges who have arranged all the statements included in each scale according to their discriminable differences. The final rational scale results when forty or fifty statements are secured whose distance from one another on a single continuum are known. This distance is essentially the discriminable difference between the statements as they appear to the standardizing group of judges.⁸²

5. Semantic Differential.¹ The semantic differential is essentially a combination of controlled associations and scaling procedures. Researchers provide the subject with a concept to be differentiated and a set of bipolar adjectival scales against which to do it, his singular task being to indicate, for each item (pairing of a concept with a scale), the direction of his association and its intensity on a seven-step scale. The difference in the meaning between two concepts is then merely a function of the differences in their respective allocations within a multi-dimensional space.⁸³

6. Thematic Apperception Test. This procedure is a psychological test based on abnormalities in one's perception. Frequently, the test exposes respondents to magazine illustrations or drawings and are asked to make up stories about them. It is posited that the individual's attitude toward the object will be reflected in his story.

At this point, discussion of the psychological factors depicted as catalysts of consumption behavior will be curtailed to emphasize the other side of this coin which is productivity. The majority of

⁸²Gordon W. Allport, op. cit., p. 11.

⁸³Gerald Zaltman, op. cit., p. 108.

people seeking to satisfy survival and security needs are expected to be productive entities. For only through productive patterns of behavior are the means for consumption provided. In the following section, the nature and significance of human productivity will be discussed.

Productivity: The Foundation for a Standard of Living

The total consumption of goods and services by members of our society is directly dependent on their productivity.⁸⁴ Each worker contributes his efforts to participate in achieving the productive goals of society and in turn is rewarded with tangibles which enable him not only to sustain life but develop himself into a more valuable member of his culture. Without the production-consumption cycle, the essence of life would be destroyed. Therefore, before any thorough presentation of the psychological factors contributing to consumption behavior can be concluded, some discussion must be devoted to the means by which consumption is made possible.

It has been previously emphasized that through the manifestation of the goal of self enhancement, the individual may be seen on a social continuum ranging from relative immobility to relatively high social mobility. Consequently, as a result of the drive to achieve and maintain a position on the social scale, the human entity must apply his productive energy to attracting those symbols which give significance to his social aspiration and identify who and what he is.

Previous research has indicated there is little correlation between intelligence and achievement scores in job success concerning the large

⁸⁴Richard H. Buskirk, op. cit., p. 129.

middle range of society. Therefore, it is posited that the attitudes an individual manifests concerning the need to achieve a position on the social scale relative to other individuals may account for the complex behavior encompassing consumption patterns and productivity.

Given that intelligence and achievement scores in themselves are not the sole determinants of job success (job success correlated to income and consumption power in market place), then possibly a model illustrating how an individual expends energy output to achieve a position on the social scale will prove enlightening.

To begin, frequently studies concerning man's innate and learned abilities indicate there are other factors which attribute to an individual's relative success in the economic contest. The paramount factor is thought of as the individual's capacity to be motivated. For instance, Einstein's formula $E = mc^2$ (energy = mass x speed of light squared), has shed great insight on the activation of energy in physical systems. Behavioral scientists have also analogized the formula with motivating human energy in social systems, i.e., $E =$ energy (released by employee), $m =$ mass (total of innate and learned abilities), $c =$ capacity to be motivated productively.⁸⁵ Thus, the release of productive human energy can be seen as a function of the mass of the employee's potential energy and his capacity to be motivated in releasing this potential energy to the productive outlets of kinetic energy or energy of motion. The important factor in efficiently

⁸⁵ Frank A. Busse, "E = mc²," Readings in Human Relations, Edited by Keith Davis (New York: McGraw-Hill Book Company, Inc., 1959), p. 69.

increasing productive energy output concerns the capacity of a given individual to be motivated, not necessarily the inherent abilities he represents.⁸⁶ However, any attempt to motivate people beyond their mental and physical capacities would lead to chaos.

To illustrate the significance of this point, a model will be presented conceptualizing total human productive output as composed of a triform of energy breakdowns. These triform of energies may be thought of in the following manner. One type might be termed "ionic" energy which is associated with one's inherent mental potential--the intelligence of the individual as measured by an I.Q. test in problem solving situations. Certainly "time" would be a function of this particular type in a triple breakdown of total productive output. The second type of energy might be classified as "polar" energy, associated with the ease a given individual is received by and receives his compeers, particularly in the immediate patron group work environment. The socialability of the individual suggests that "personality" is a function of this energy. Lastly, "mechanical" energy of an individual is closely associated with innate and learned motor (muscular) responses. Ionic and polar energy would count for little in this type of energy and thus relegate it to a separate category. A function of this type of energy would be the "speed and accuracy" of the stimulus-response relationship.⁸⁷ Thus, the individual aspiring to achieve and maintain a position on the social scale would utilize

⁸⁶Ibid., p. 69.

⁸⁷Bruce Gunn, "The Dynamic Synthesis Theory of Motivation," Management Science, Vol. 14 (June, 1968).

this triform of energy output in rising to and maintaining a position on the social scale in establishing homeostasis with his environment.

In Figure 8, a model of social mobility is presented which is designed to illustrate how people secure positions on the social scale through their total productive outputs. The model is relevant to the contemporary period where social class is still predominantly determined by income and educational factors. Figure 8 represents a graphic picture of several employees' total productivity output trendlines and can be thought of as a function of the individual's internal energy ratio (combination of three energy outputs). This ratio determines the individual's angle of penetration into the inner sanctum of social influence illustrated by a set of quarter circles. These curves represent the hierarchy of social influence and are characterized as symmetrical, infinite in number and non-intersecting.

The trendline system (each trendline represents the total productive energy output ratio of the employee) demonstrates four characteristics: First, the linear trendlines of the internal energy ratios slope upward and are positive; second, the length and slope of a total productive energy output trendline is a function of the internal energy ratio produced by a given employee; third, the linear trendlines do not intersect. Ideally, if an employee's control of his various energy reservoirs is dexterous enough, he will be able to alternate productive output by switching to other internal energy output ratios which will potentially lead to satisfaction of his personal needs. This would be demonstrated by a new output trendline for the individual who has altered his energy ratio. It is assumed,

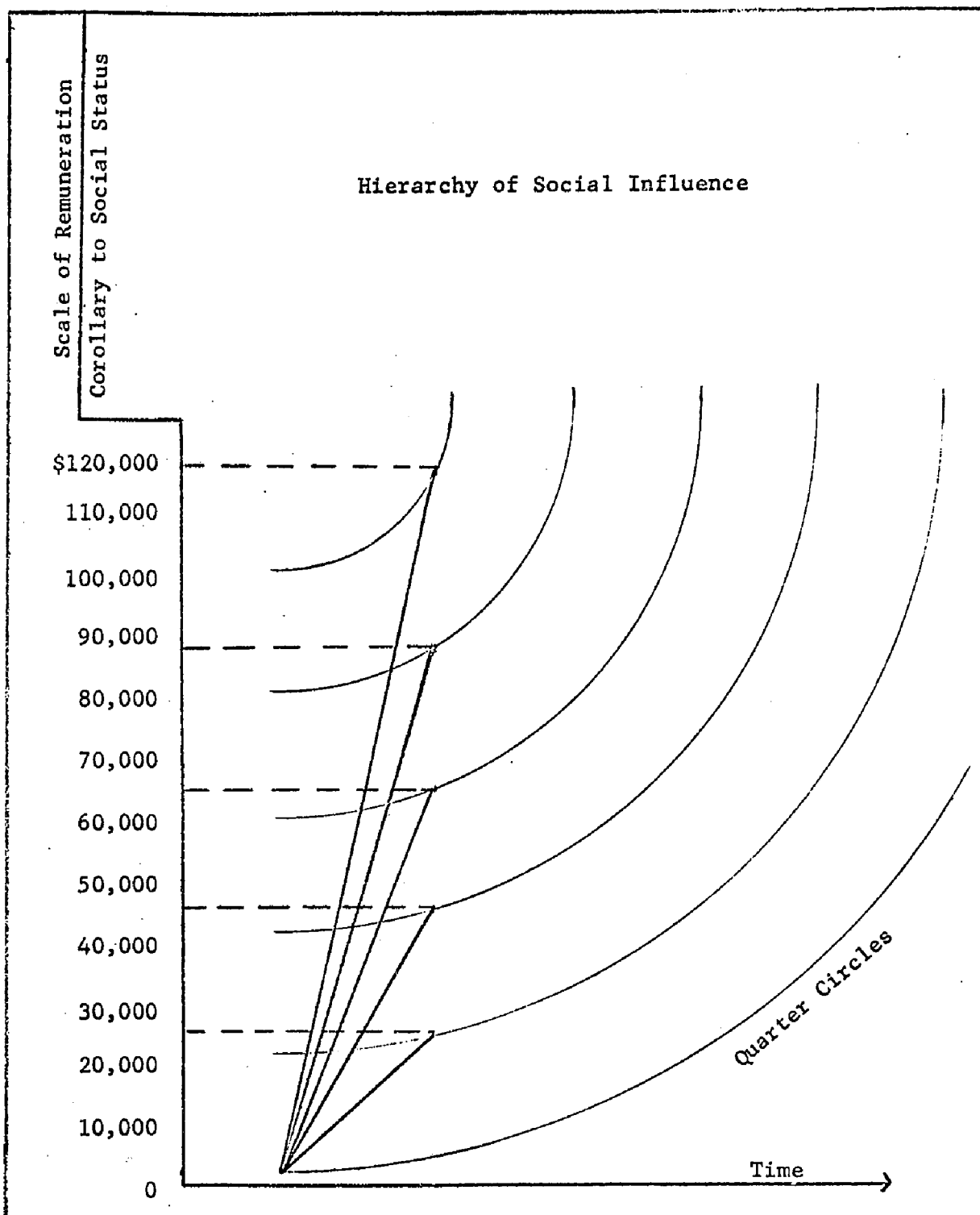


Figure 8: Graphic Model of Total Productive Output Trendlines of Consumers in Establishing Social Status

NOTE: The length and slope of each trendline is a function of the internal energy (ionic, polar, mechanical) output ratios of given consumers measuring the time period taken in achieving various levels of status and remuneration.

however, that one cannot make inferences regarding the amount of satisfaction gained in shifting to internal energy ratios of a more positive slope, nor does it seem necessary to do so. However, it can be postulated that the length of penetration demonstrated by the trend-line can be directly related to the opportunities for higher need satisfaction.

Less adaptable individuals will seek the satisfaction of needs inherent in higher strata of social influence by maximizing whatever energy reservoirs are available to them for optimum need satisfaction. Other individuals, depending on the degree of their inherent motivation will seek the path of least resistance in view of their perceived homeostasis within the social environment. Fourth, the termination of any solid line simultaneously plots the relative status of the individual in the social environment, the time lapse in achieving this position and the remuneration level acquired.

It should be noted in Figure 8, each individual starts at the same point on the horizontal axis and the termination points of the solid lines represent an equal time period. For each of these terminal points, time can be plotted on the horizontal axis and remuneration can be measured on the vertical axis. Social status can be estimated by the relative position of the termination points in relation to each other. Remuneration figures were chosen for the vertical scale to denote social position because frequently educational background and social position are directly related to income. Further, the economic concept of utils was not used in this instance because of the nebulous connotation of this term.

Realistically, individuals can and do start at various points on the infinite number of trendlines because of such variables as family influence, education, social background, inherited wealth, etc. The graphic aid is not meant to suggest that everyone must start at the same point but merely to present a visual aid illustrating an individual's internal energy ratio as a function of the slope and length of his total productive energy output in achieving various levels of status and remuneration in a given time period.

A Review of the Paramount Factors Concerning the
Psychodynamics of Consumer Behavior

It is posited a major trend of thought which may provide a significant approach to the further comprehension and synthesis of information concerning consumer behavior is the "goal of self enhancement." This concept may be thought of as the center of gravity in the study of human behavior, for all phases of human activity can be traced to the two dominant motivational aspects (survival and security needs) of this concept.

Perception, which is man's mental view of his environment, is primarily concerned with guiding the individual through his environment toward the goal of self enhancement. Because each person's goal aspirations in achieving self enhancement are different, each individual can be expected to perceive the world through different perceptual lens or filters.

In light of man's unique ability to gather information, interpret, and make decisions concerning environmental stimuli, he possesses,

perhaps more than any other entity, the potential ability to control his environment. The successful achievement of such an endeavor could sustain life indefinitely. However, to accomplish any portion of this monumental feat requires that man continue to derive meaning from his everyday environment.

Meaning has usually been associated with the process whereby a person perceives a stimuli and associates a response, implicitly or explicitly, with it. The response is primarily composed of an evaluation of the object's (stimuli set) relationship to the entity's goal of self enhancement. This process results in the formation of attitudes which essentially reflect the degree to which the individual perceives the object contributes to his goal of self enhancement. Attitudes toward distinguishable phenomena (objects and actions) are formed spontaneously once these stimuli sets are perceived. Such spontaneity incorporates error content in the attitude's related evaluation of a given object's effect on the goal of self enhancement.

Thus, in order for Homo sapiens to improve their chances of goal accomplishment, they must constantly reevaluate the actual effect a given phenomenon has on their goal of self enhancement. Consequently, error content is eliminated as the attitude response pattern is more accurately realigned with the available information. This process of stabilizing attitudes can be thought of as the formation of beliefs. Therefore, the ultimate in man's perceptual adjustment to his environment comes when these "belief-attitudes" are organized into a pattern of responses called images. The subtle nature of this process is frequently investigated by market researchers using semantic differential

techniques. Man intuitively develops images of environmental phenomena which he perceives as having significant value to the achievement of his goals toward self enhancement.

Part of this imagery formation develops about one's "self" through interaction with his social environment. This process provides the individual with a social mirror of who and what he is (real self). If the individual is not satisfied with society's consensus of his position in society, he may set a social position (aspired self) he desires to attain and then mobilize his energies to achieve this position. However, until he reaches this aspired position, he may be thought of as being dominated by a state of tension (dissatisfaction). Only when the individual achieves a level of personal development that is congruent with the self concept (as manifested by the goal of self enhancement) will the tension be reduced relatively speaking and a state of homeostasis achieved.

In view of this concept, people in the North American culture can be thought of as being represented by a position on the social continuum that ranges from low mobile individuals to high socially mobile people. From this continuum, people can be stratified into classes according to their personal characteristics (tangibles: age, race, income; intangibles: attitudes, beliefs, images) to differentiate their consumption patterns for marketing purposes. It has been hypothesized that persons in these various sectors of the market generally share the same attitudes toward objects in the social environment and, therefore, can be segmented into specific markets for products.

The underlying strategy behind the necessity for segmented markets is that each individual manifests a self image composed of his real and aspired self in society. These individuals act in such a manner as to identify with the social position which is congruent with the self concept (a function of the goal of self enhancement). Perhaps the most tangible way of giving meaning to their aspirations is to purchase symbols (primary and secondary need characteristics inherent in products) associated with the position as well as congruent with the characteristics of the self concept of the individual. That is, the characteristics of the products must be complementary to the self concept of the individual as well as manifesting the desired external meaning. If the product proves to be detrimental to the self concept as perceived by the individual, it is usually thought that a condition of cognitive dissonance prevails. In such cases, the individual has two courses of action, one would be to build up the positive features of the product in one's mind while repressing the negative features thus forcing congruency of the product image with the self image. The other course of action is to return or exchange the product for an item perceived as more suitable to the self concept.

For years, market researchers have been experimenting with attitudes in an effort to pinpoint their role in the consumption patterns of consumers. In this chapter, a hypothetical model was proposed which shows purchasing behavior as simulated by a vector analysis of need (positive) forces and cost resistance (negative) forces. That is, when the need forces surpass the cost resistance forces, a purchase can be expected concerning a given product. The

nature of attitudes with their neutral, negative and positive relationships to a given phenomenon (reflecting degree to which a product is perceived to contribute to one's goal of self enhancement) determine the direction (specific product) that purchasing behavior is most likely to take. However, deriving attitudes of consumers with a high degree of fidelity presents numerous pitfalls for the market researcher. Consider the classic example of the Chrysler Corporation's unsuccessful mid-1950 survey to determine the ideal car desired by the American public. As it turned out, what people said they wanted was merely a tribute to their rational ideals. Their purchasing behavior, much to Chrysler's chagrin, attested to the fact that the rationale behind man's purchasing behavior is frequently a closely guarded obscurity.

People are more frequently concerned with responses which enhance the self than in conveying information concerning their true motives. This realization has sponsored a limited degree of technology to be entered on the stage of attitude research. This technology is primarily concerned with improving the accuracy of attitude testing. Devices such as galvanic skin response electrodes (measuring perspiration of palms of hands as a result of nervous tension) and eye cameras to measure dialation of the eye's pupils are being used to achieve this end.⁸⁸ Pupils expand and contract partly in relation to the vital nature of the stimuli being received. That is, pupils may be expected to expand when false answers are given. The theory behind

⁸⁸ Joseph B. Cooper and David Pollock, "The Identification of Prejudicial Attitudes by the Galvanic Skin Response," Readings in Attitude Theory and Measurement, Edited by Martin Fishbein (New York: John Wiley and Sons, Inc., 1967), p. 180.

the application of such devices is that when an individual intentionally falsifies a response certain reactions from the autonomic nervous system occur. The reactions are monitored by these physiological devices which are used to evaluate the accuracy of the response. To date some limited successes have been achieved with these mechanisms, but the cost and burdensome nature of such techniques render them unsatisfactory for wide-scale application.

Thus, predictable purchasing behavior can be seen as a function of numerous psychological factors. A major part of the consumption patterns of consumers concerns the success of their endeavors in the economic contest. In order to attain a real or aspired position on the social continuum, individuals must be productive to acquire the necessary purchasing power to achieve and maintain this desired position.

This paper has posited that intelligence and achievement scores are not the predominant indicators of an individual's potential worth to society (concerning the large middle range of the peoples' intelligence and talents) but rather his attitudes toward the need to achieve status in society. It is proposed that these attitudes ultimately pave the way for the individual's relative motivational potential (energy expenditure) in the market system.

The next chapter will delve into the extra personal factors (social forces) which play a dominant role in the formulation of social attitudes and exert significant influence on the mobilization of the productive energy of the consumer as well as the general direction this purchasing behavior can be expected to take in the market place.

CHAPTER IV

THE SOCIOLOGICAL ASPECTS OF CONSUMER MOTIVATION

In the latter chapter, the intra psychological factors which are pertinent to the mobilization of productive consumer energies were discussed. However, in the immediate chapter, attention will be switched to the extra social forces which are thought to affect consumer motivation. Certainly, it is typical in society that one man's means are another man's ends. Thus, it is generally against man's nature to live in isolation in such synergistic cultural systems. Therefore, to complete the closed-loop status of this system's approach to consumer motivation, the sociological factors pertinent to the motivation of consumers' energies must be elucidated.

However, for this task to be completed, some original research must be performed. This research will provide new knowledge concerning procedures for identifying the opinion leader. To date, much has been written about this elusive individual, but there seems to be a general lack of practical procedures for identifying him amidst the camouflage of total society. Until the marketer can economically identify and reach this powerfully influential person through the firm's promotional mix, some resistance to the efficiency of the distribution system may be expected as a result. That is, in view of the estimate that only one out of five new products put on the market

proves profitable,¹ constant improvement in the effectiveness of our marketing system must be gained if society's goal toward higher standards of living is to be achieved.

Therefore, it is proposed that the need for practical procedures for identifying marketing opinion leaders represents one of the most important obstacles to the completion of a systems approach to consumer motivation. A successful solution to this problem should increase significantly the flow of intelligence on the dynamic nature of opinion leaders as well as add immeasurably to the brain bank on consumer motivation.

Social Physics: A Prelude to Greater Comprehension
of Social Phenomena

Earlier in this study, it was suggested that as a discipline, social science is about as advanced as astronomy was in the middle ages. Most behavioral scientists are in agreement that this discipline must progress significantly before it can achieve the status of the physical sciences.

The procedure utilized in this paper to circumvent the nebulous aspects of social concepts is the medium of analogy. Through this medium, social concepts are explained in terms of physical concepts. The net result is thought to be a much more concrete conceptual structure in facilitating the comprehension of social phenomena. This technique is based on the central premise of systems theory--that all

¹Edmund D. McGarry, "The Merchandising Function," Theory in Marketing, Edited by Reavis Cox, et. al. (Illinois: Richard D. Irwin, Inc., 1964), p. 244.

known phenomena evolved from particles and a central core of natural laws. The complexity of contemporary systems has resulted from the evolutionary process of building on the foundations of past systems. Therefore, by abstracting back, all phenomena can be explained on the basis of these universal concepts.²

The use of physical concepts to explain certain phenomena in the social sciences is not a new idea. Academicians known as social physicists have been attempting to achieve this end for centuries. Perhaps most social physicists credit August Comte (1820) with being the father of this movement.³

A contemporary social physicist, John Q. Stewart, claims the immediate objective of the social physicist is to discover uniformities in social behavior which can be expressed in mathematical form more or less corresponding to the known patterns of physical science. To date, not enough is known about the ramifications of social behavior to successfully apply the mathematics of the physical sciences to social phenomena. However, this point is in contradiction with Stewart who believes regularities exist to justify the conclusion that certain types of human behavior, on the average and only on the average, conform to mathematical formulae resembling the primitive "laws" of physics.⁴

²Note that science has already found numerous applications for such universal concepts as the Law of Gravity, the Laws of Motion, Conservation of Energy, etc.

³George Schwartz, op. cit., p. 37.

⁴Ibid.

To illustrate broadly how these physical concepts may have further application to social phenomena, one might use Newton's Law of Gravity. This Law, in simplified form, states that all objects in the universe attract all other objects with a force called gravitation. In other words, the sun's gravitation holds the planets in their paths. Newton also asserted that the force of their attraction depends on the masses of the objects and on the distance between them. The attraction increases in proportion to the masses of the bodies. The greater the masses, the greater the forces. The attraction decreases in proportion to the square of the distance between the centers of gravity. The larger the distance, the smaller the force.

This concept has practical application to social phenomena. For instance, analogize the center of gravity (atom) as the culture and the satellites (electrons) in orbit around it as minority groups. Physicists have demonstrated that as the satellite increases its activity around the center mass, it extends its distance from the center of gravity along the energy spectrum to a point where the gravity ceases to control the satellite's behavior (orbit), and it breaks loose into a state of chaotic activity.

Culture may be thought of as the center of social gravity with minority groups as its satellite bodies. The medium by which culture controls its integral parts is through communication.⁵ Thus, communication in the social sciences can be seen as similar in function to gravity in the physical sciences. Perhaps the excited state of a

⁵Gerald Zaltman, op. cit., p. 9.

minority group may be the result of a lack of mobility within the cultural system. Thus, as the minority group moves away from the main culture (center of gravity) in this excited state, its behavior at one point becomes erratic. Certainly history bears witness to the violent behavior of alienated classes exemplified by the French and Bolshevik Revolutions, Western Europe's religious wars, and America's civil rights revolution of the 1960's. Only when the source of frustration is removed will the subcultures return to normality in behavior.

The above analogous description should tap the curiosity of the marketing strategist. For instance, the contemporary Negro riots which have resulted in the destruction and looting of numerous retail outlets has not provided convincing evidence these people are struggling for the necessities of life. In fact, many of these offenders have been found to have surprising sums of money on their person when taken into custody. The suggestion here for marketers is that there is strong reason to believe the real culprit is the frustration of these individuals over their general lack of class mobility. That is, the American Society with its numerous welfare organizations generally provides all citizens with the basic necessities of life. Curiously enough, the products and funds pilfered on the whole frequently represent aspirations of class mobility rather than survival needs of the offender.⁶ Generally, most marketers understand that products serve both the primary and secondary needs of man. However, frequently

⁶Loren E. Edwards, Shoplifting and Shrinkage Protection for Stores (Illinois: Charles C. Thomas, 1958), p. 114.

in the wake of crisis, the knowledge of marketers has not been diffused on a wide enough scale to provide understanding of the root of the problem.

Perhaps further credence of a social physics approach to marketing behavior can be gained through the following concept called "Demographic Energy." This concept refers to the interchange, or human relations, between clusters of people. Demographic energy acts along the line joining relevant groups of people and is measured by the equation:

$$E = \frac{P_1 P_2}{r}$$

E is demographic energy

P₁ is one population group

P₂ is another population group

r is the distance between the two population groups

Demographic energy is expressed in persons per square mile. When one group of people is placed close to another, each is subjected to the other's field, and the result is a strong interaction between the two universes.⁷ It is interesting to note that Stewart regards Reilly's Law of Retail Gravitation as an example of the operation of demographic energy.⁸

⁷George Schwartz, op. cit., p. 41.

⁸Note the formula simply says that people will normally be attracted to the nearest and largest shopping facility. These two factors may not always be compatible, since the nearest shopping area may not be the largest in the area. The formula tries to adjust for this. There are several variations, but the simplest (and sometimes least accurate) is:

In view of this concept of demographic energy, there seems to be a basic belief among some businessmen that rapid growth of population tends to assure prosperity.⁹ Population centers such as India and China attest to the fallacy of this idea. Social physics might contribute the essential factor here with the observation that temperature (physical energy) is analogous to money (social energy) and is directly proportional to the level of activity of people (atoms), e.g., bank deposits per capita, mileage of railways and highways per square mile of area, cars per capita and retail sales. In other words, population growth by itself is not necessarily a significant marketing factor, but population growth with increasing discretionary income is significant.

One of the main accelerators of America's marketing environment has been the rapid growth of suburban areas which represents approximately 70 per cent of the United States total population. The suburban areas also represent the major portion of wealth; for with the exception of a little furniture and a closet full of clothes, most interurban city

⁸(cont.)

$$\begin{array}{l} \text{Limit of A's} \\ \text{Trading Area} \\ \text{in Miles} \\ \text{Toward B} \end{array} = 1 + \sqrt{\frac{\text{Population of Town B}}{\text{Population of Town A}}} \quad \begin{array}{l} \text{Distance in Miles Between A and B} \\ \hline \end{array}$$

This formula says that the attractiveness of alternate shopping facilities is based simply upon population and distance.

⁹James N. Land, "Population Growth: Aid or Threat to Prosperity," Managerial Marketing: Perspectives and Viewpoints, Edited by William Lazar and Eugene J. Kelly (Homewood, Illinois: Richard D. Irwin, Inc., 1962), p. 102.

dwellers have few possessions.¹⁰ This fact helps attest to the reality that suburban America represents the show case of American prosperity. In spite of its many physical and social problems, the large population agglomerations with its ample financial resources is the most efficient producer and consumer unit mankind has yet devised.¹¹

This section has elucidated some of the ramifications of social phenomena which affect the marketing environment. The following section will demonstrate the broad influence of culture in controlling the general aspects of consumer behavior. What is attempted to be shown in the following sections is that the behavior of consumers becomes more directly affected as the hierarchy of social influence is ascended from culture to the opinion leader.

Culture: The Social Field of Influence
for Controlling Human Behavior

The Homo sapien's central penchant in his drive toward the goal of self enhancement is to achieve and maintain a position in the social environment. Perhaps the center of gravity for controlling human behavior in this social environment is the individual's immediate culture. This culture represents the complex whole which includes knowledge, belief, art, law, morals, custom and any other capabilities and habits acquired by man as a member of society.¹² The basic function

¹⁰William Lazar and Eugene J. Kelly, op. cit., p. 99.

¹¹Philip M. Hauser, "The Census of 1960," Marketing In Progress: Patterns and Potentials, Edited by Hiram C. Barksdale (New York: Holt, Rinehart and Winston, Inc., 1964), p. 256.

¹²Gerald Zaltman, op. cit., p. 7.

of culture is communication, which serves to control the behavior of its integral parts (individuals to subcultures). Seen in this light then, culture represents a center of gravity in the social environment just as the atom (or sun) represents a center of gravity in the physical environment. The atom controls the behavior of its satellites (electrons) by its gravitational field just as culture controls the behavior of its integral parts (subcultures) by its communication field. Thus, culture can be seen as a communication field of man representing a set of ideas, attitudes, habits and rules evolved by men to help them in the conduct of life. This point can be clarified by examining the hierarchy of social influence more closely.

For instance, man's drive to achieve and maintain a position in society is demonstrated by his ambition to identify with those subcultures which are generally associated with some phase of that position. These subcultures with which individuals identify are termed reference groups. The term reference group was originally coined by Herbert Hyman in his book, Psychology of Status, and refers to a relevant psychological relationship which exists between an individual and a real organization.¹³ This expression concerns the fact that people evaluate themselves and orient their behavior by reference both to (1) the groups in which they hold official membership, and (2) others to which they aspire or hope to belong in the future. A reference group is thus any group with which a person psychologically

¹³Herbert H. Hyman, Psychology of Status (New York: Columbia University Press, 1942), p. 38.

identifies himself or in relation to which he thinks of himself.¹⁴ The individual is recognized as affiliated through membership, association, and inclination with many groups. Examples of a hierarchy of social groups may be the family, company, political parties, social class and ultimately the culture.

The individual has certain key reference groups from which he takes most of his behavior cues; he conforms to the behavior patterns dictated by these reference groups because he wishes to be accepted by the members of those reference groups. This pressure toward conformity is rooted in the person's basic needs for acceptance and approval.¹⁵ The price of admittance to most groups is conformity to their standards. It is the ever present pressure for conformity that forms the cohesiveness of groups which ultimately dictates the standard behavior to be transmitted throughout the group. Of course, each group varies in its pressures to conform but all groups have some limitations by which its members must abide.

Experiments concerning conformity behavior have disclosed that those individuals enjoying the most security by virtue of their prestige and status within a group would generally conform to the standards of that group. But these individuals were also most free to deviate from the group norms on those occasions they thought circumstances seemed to justify such action. However, those individuals with

¹⁴A. R. Lindesmith and A. L. Strauss, Social Psychology (New York: Holt, Rinehart and Winston, Inc., 1956), p. 241.

¹⁵M. Brewster Smith, "The Personal Setting of Public Opinions: A Study of Attitudes Toward Russia," Readings in Attitude Theory and Measurement, Edited by Martin Fishbein (New York: John Wiley and Sons, Inc., 1967), p. 67.

the lowest feelings of security and least status in a group were most likely to conform publicly to its norms on all occasions even though harboring private opposition and resentment.¹⁶ Thus, the more insecure a particular individual feels in a group he wishes to maintain membership with, the more important it is for him to conform to the norms of the group. This process is reinforced by the development of a network of communication which rewards conformity by inclusion and greater contact and punishes nonconformity by lesser contact.

The central idea for marketers to keep in mind is that research has shown that an individual behaves in accord with the values and norms of his dominant reference group.¹⁷ Purchasing behavior may be personally influenced, or it may be socially conditioned. Consumers are often influenced by what others buy, especially those individuals which serve as reference groups. For example, William H. Whyte, Jr. in his study of air conditioner ownership in a Philadelphia community, records a very high degree of interpersonal influence in the purchase of the units. In addition, his study shows that the direction of the flow of interpersonal influence is directly correlated with social contact, namely the friendship patterns of the housewives and children of the community.¹⁸ Progressive Grocer's Consumer Dynamics Study gave an interesting example of two identical families (age, education, income, size of family, etc.)--one living in a higher class neighborhood

¹⁶Schuyler F. Otteson, et. al., Marketing, The Firm's Viewpoint (New York: MacMillan Company, 1964), p. 137.

¹⁷Paul R. Lawrence, et. al., Organizational Behavior and Administration (Homewood, Illinois: Richard D. Irwin, Inc., 1965), p. 199.

¹⁸James H. Myers and William H. Reynolds, op. cit., p. 304.

and the other living in a lower class neighborhood. Each family adopted the food purchasing patterns generally thought as standard for the neighborhood in which they lived.¹⁹

Thus, the above examples illustrate how individuals conform to the purchasing patterns condoned by their reference groups. This factor becomes extremely significant when upward mobility is sought in society. This ambition is facilitated by adherence to the attitudes of those in the groups with which one aspires to be identified. This association requires the purchase of symbols (products) which support this desired identity. Recent research findings indicate high mobile (status conscious) individuals are the earliest adopters of many new products; as a result of their open mindedness, they are quick to try the new.²⁰ Perhaps part of the answer lies in the fact that high mobiles, manifesting a strong social drive, generally contribute more to social goals and consequently, enjoy relatively high security. Thus, a higher status level gives them relatively more freedom to deviate from the norm through innovation.

The conspicuousness of a product is perhaps the general attribute bearing on its susceptibility to reference group influence. To be considered conspicuous, a product should be identifiable as having distinctive characteristics. That is, the product must be differentiated significantly so that a specific segment of people may be

¹⁹"Study Reveals 'Neighborhood' Influence on Consumer Buying Habits," Progressive Grocer, Vol. 45, No. 4 (April, 1966), p. 269.

²⁰"The Tastemakers--The 'High Mobiles,'" Consumer Behavior and the Behavioral Sciences (New York: John Wiley and Sons, Inc., 1967), p. 291.

recognized as being identified with it. Certainly if the product could be found in every household in the same form (salt), it could not be considered significantly differentiated to qualify for reference group identity.²¹ Examples of products with high reference group identity are cars and clothing, and those products with relatively low reference group identity are radios and laundry soap. Though air conditioners manifest relatively little brand prestige, the converse is true of cigarette brands.²²

It is generally recommended that where neither product nor brand appears to be associated strongly with reference group influence, advertising should emphasize the product's attributes, intrinsic qualities, price, and advantages over competing products.²³ However, where reference group influence is operative, the advertiser should stress the kinds of people who purchase the product, reinforcing and broadening the base of users similar to the 1968 Buick advertising campaign.

The topic of advertising opens a controversy as to just how marketing information permeates through reference groups to ultimately reach the various sectors of society. The following section will examine the process of marketing information diffusion to demonstrate the flow of influence among reference groups.

²¹Schuyler F. Otteson, op. cit., p. 138.

²²Rensis Likert and Samuel P. Hayes, Jr., "Group Influences in Marketing," Marketing Models, Quantitative and Behavioral, Edited by Ralph L. Day (Scranton, Pennsylvania: International Textbook Company, 1964), p. 74.

²³James H. Myers and William H. Reynolds, op. cit., p. 178.

The Diffusion of Marketing Information

There is some question as to whether influence flows from higher social classes to the lower strata or whether mass media reaches opinion leaders, and they in turn diffuse this information within their sphere of influence.

Early economists such as Rae, Foley and Veblen were responsible for a concept of social influence called the "trickle down" theory.²⁴ This theory generally assumed that opinions were formed by the power elite of the community (upper socio-economic classes) and then permeated down the social pyramid to the middle and finally the lower classes.²⁵ Contemporary behavioral scientists might term this the snob appeal theory. The basic idea behind this approach was thought that by getting social leaders and high income groups to buy and use a given product, the mass market would emulate the socially elite and also purchase the product. The assumption has been that influence in a society follows a vertical path starting at levels of high status or prestige and moving down to the lower strata of society. However, empirical evidence has rejected the "trickle down" theory as a valid explanation of social influence.²⁶

²⁴Charles W. King, "Fashion Adoption: A Rebuttal to the 'Trickle Down' Theory," Dimensions of Consumer Behavior, Edited by James U. McNeal (New York: Appleton-Century-Crofts, 1965), p. 115.

²⁵Steven J. Shaw, "Behavioral Science Offers Fresh Insights on New Product Acceptance," Readings in Marketing: The Qualitative and Quantitative Areas, Edited by Philip R. Gateora and Lee Richardson (New York: Appleton-Century-Crofts, 1967), p. 268.

²⁶Charles W. King, op. cit., p. 121.

There were other behavioral scientists who proposed that the mass of society obtained their ideas directly from newspapers, radio, and other media. However, Lazarsfeld's pioneering work in his text, Personal Influence, did not bear this out. In fact, he found strong suggestion that the flow of influence is largely horizontal, i.e., individuals on each status level look to their own corps of leaders for information concerning the subject in question. Lazarsfeld emphasized that the majority of people acquired much of their information and many of their ideas through personal contacts with opinion leaders in their groups.²⁷ The 1940 voting study gives support to this idea with the observation that personal influence affected voting decisions more than mass media did, particularly in the case of those who changed their minds during the course of the campaign.²⁸ Further, there seems to be little interchange of ideas across class boundaries. Elihu Katz presented data that suggested personal influence was seven times more effective than magazine or newspaper advertising in persuading individuals to switch brands.²⁹

Thus, Lazarsfeld concluded that the one-step scheme is an oversimplification or even a gross distortion of the actual channels through which information flows. Consequently, the two-step flow hypothesis

²⁷Paul F. Lazarsfeld, et. al., The People's Choice (New York: Columbia University Press, 1948), p. pxxiii.

²⁸Elihu Katz, "The Two-Step Flow of Communication: An Up-to-Date Report of an Hypothesis," Marketing Models: Quantitative and Behavioral, Edited by Ralph L. Day (Scranton, Pennsylvania: International Textbook Company, 1964), p. 91.

²⁹"What Opinion Do Opinion Leaders Lead?" Printer's Ink, Vol. 286, January 10, 1964, p. 11.

was developed to explain more adequately the flow of communication to and among the general public. The essence of this hypothesis is that ideas flow from radio and print to opinion leaders and from these to the less active sections of the population.³⁰ Perhaps, the primary credence to this idea was reported in The People's Choice. Here it was found that people who made up their minds late in the political campaign, and those who changed their minds during the course of the campaign, were more likely than other people to mention personal influence as having figured in their decisions.³¹ In the text Personal Influence, it was postulated that opinion leaders in every realm tend to be more highly exposed to the mass media than are non-leaders.³² However, it should be noted that "two-step flow hypothesis" is not particularly well documented by empirical data. That is, the design of the study in The People's Choice did not anticipate the importance which interpersonal relations would assume in the analysis of that data.³³ A multilateral approach has now become vogue. That is, the Decatur Study and later the Elmira Study revealed that the opinion leaders themselves often reported that their own decisions were influenced by still other people. It began to seem desirable, therefore, to think in terms of the opinion leader having an opinion leader.³⁴ Thus, the "two step flow" now appears to

³⁰Elihu Katz, op. cit., p. 80.

³¹Ibid., p. 83.

³²Elihu Katz and Paul F. Lazarsfeld, Personal Influence (Illinois: The Free Press, 1955), p. 313.

³³Elihu Katz, op. cit., p. 81.

³⁴Ibid., p. 88.

be an understatement. More than two steps is the usual case in most situations. Consider, for example, that within each socio-economic group, there are first, fashion innovators who attract the attention of influentials, once these opinion leaders accept the fashion then it is generally adopted by the greater number of their followers. Perhaps a more appropriate name might then be, "The Multi-Step Flow of Communication and Influence Hypothesis."³⁵

Thus, it might be theorized that marketing leaders much like the non-leaders base their decisions primarily on information obtained through personal contact with authoritative sources and use media only as a supplementary device.³⁶ The essence of this discussion emphasizes that opinion leaders as members of reference groups, a part of the larger culture, are a major medium of mass communication and require further investigation.

The Charismatic Influence of Opinion Leaders

In an earlier section, culture was analogized as the center of gravity for subcultures with its communication field representing the paramount force controlling the behavior of these integral parts or minority groups. It has frequently been a common case to look at society as a total mass of independent variables (analogous to atoms). However, society might be better represented as clusters of socially related

³⁵M. Dale Beckman, "Are Your Messages Getting Through?" Journal of Marketing, Vol. 31 (July 1967), p. 38.

³⁶Paul F. Lazarsfeld, "Who Are the Marketing Leaders," Dimensions of Consumer Behavior, Edited by James U. McNeal (New York: Appleton-Century-Crofts, 1965), p. 113.

and integrated groups (analogous to molecules) which compose society. Just as there are atoms (metals) that tend to freely give off electrons and atoms (nonmetals) that tend to receive electrons (combination of the two form molecular structures), there are also people who tend to transmit ideas (opinion leaders) and individuals who are primarily recipients of these ideas (influencees). The combination of idea transmitting and idea receiving entities tend to form social molecular structures representing a multiplicity of human associations which ultimately form the whole of society.

The essential nature of the opinion leader in the marketing environment can be seen in the fact that the average consumer has neither the ability nor the time to make a careful personal investigation of all the descriptive information available concerning the purchases he makes. He must depend upon authoritative sources of information which are congruent with his particular aspirations or needs in order to make a selection. This is especially true when a particular kind of information is insufficient or difficult to interpret. Certainly few individuals could accumulate enough knowledge and skill in a lifetime to become an expert in evaluating all the detailed aspects of a given product area concerning purchasing decisions.³⁷ Compounding the difficulty of this situation is the fact that today's consumers face many more marketing decisions regarding purchases than did any of their counterparts in the past. Perhaps Sherif's work concerning conformity behavior provides the most

³⁷Rayburn D. Lousley, et. al., Principles of Marketing (New York: The MacMillan Company, 1962), p. 127.

authoritative study in demonstrating that individuals turn to and depend on others when they have to form opinions or make decisions in unclear or difficult situations.³⁸ Thus, the marketing influential represents a focal point for investigation considering the dynamic qualities of personal influence this individual possesses.

The opinion leader might be defined as, "a socially receptive influential who is sought out by other compeers for his ideas, opinions and decisions concerning situational problems." Perhaps the most flagrant example of the power of personal influence in modern times concerned the Chinese brainwashing tactics of the American P.O.W.'s during the Korean War. These tactics involved the total distruction of the authority or leadership structure of the personnel. That is, all reactionaries (opinion leaders) and officers were segregated from the main body of prisioners rendering the captives largely ineffective in carrying out or supporting subversive activities.³⁹ The spine of this group was broken as a result of a general lack of effective leadership.

Recent trends in the study of leadership strongly emphasize that leadership is not so much a trait which some people possess and others do not, i.e., there does not appear to be any born leaders. But rather, leadership is a response of people reacting together to the situation in which they find themselves. Obviously, in diverse situations, different people will percolate to the top of the leadership ladder. Numerous academicians have observed that no two studies find

³⁸ Elihu Katz and Paul F. Lazarsfeld, op. cit., p. 57.

³⁹ Edgar H. Schein, Brainwashing (London: Steven and Sons, Limited, 1961), p. 176.

the same traits characteristic of leaders.⁴⁰

Perhaps this point serves to emphasize that society should not be seen as a simple mass (atomic structure) of individuals but rather as a conglomerate of groups (molecular structure) where individuals represent a multitude of associations.⁴¹ The important point is that man does not exist in isolation but in groups which represent his diverse social behavior.

The Three Faces of Opinion Leadership

In the previous sections two of the behavioral characteristics necessary to qualify as an opinion leader were mentioned. These characteristics are leadership potential (performance which commands confidence) and social class position (horizontal nature of opinion leadership). Finally a third factor, social integration or gregariousness, is extremely essential if the individual is to successfully function as a transmitter of ideas. These characteristics will be discussed in the following order: leadership potential, social integration and social class position.

To qualify as an opinion leader, one should possess those attributes of knowledge, experience and values which are sought by the influencees in contributing to the solution of the latter's problem. For instance, Lazarsfeld's research indicates that housewives with large families head the list in marketing leadership. On the average, these women with large families are almost twice as likely as other

⁴⁰Elihu Katz and Paul Lazarsfeld, op. cit., p. 100.

⁴¹Ibid., p. 3.

women to be marketing leaders. This concentration of opinion leaders among large family wives is strong evidence that what counts at least in marketing leadership, is the intensive, everyday "experiencing" of marketing problems.⁴²

The Drug Study⁴³ further supports the idea that people develop confidence in an influential's opinions as a result of the opinion leader's experience. That is, influential doctors were characterized by their greater attention not only to medical journals, but to out-of-town meetings and contacts as well. In short, the most scientific of the practicing physicians are the most frequently mentioned opinion leaders among the doctors.

The strong influence of young people in the realm of movie going can also be understood best in terms of their familiarity with the picture world. Also, the Elmira Study found slightly greater concentrations of opinion leadership among the more educated people on each socio-economic level, again implying the importance of competence. Finally, the Rovere Study observed that the influence of the "cosmopolitans" rested on the presumption that they had acquired large amounts of information.⁴⁴

Generally the influence of opinion leaders does not tend to overlap into other areas of specialization. First, Katz and Lazarsfeld's conclusion that there is little overlap among opinion leaders

⁴²Ibid., p. 240.

⁴³James Coleman, et. al., "The Diffusion of an Innovation Among Physicians," Marketing Models: Quantitative and Behavioral, Edited by Ralph L. Day (Scranton, Pennsylvania: International Textbook Company, 1964), p. 100.

⁴⁴Elihu Katz, op. cit., p. 95.

was derived from a study which was much more comprehensive than any other study relevant to the monomorphic nature of opinion leadership. Second, the singular view of opinion leadership was consistent with the findings of other kinds of research on opinion leadership. All this research seems to indicate that opinion leadership is a fairly common trait. Opinion leaders and those they influenced were found to be very much alike. Even the kinds of factors that were found to distinguish influentials and influencees (e.g., competence or expertness), and strategic social location seemed to suggest that opinion leaders concerning one subject area were not likely to overlap those in another. Thus, the notion that opinion leaders were monomorphic rather than polymorphic coincided with the opinion of social psychologists that leadership is a situational phenomenon.⁴⁵

Lazarsfeld found the trait of social integration or gregariousness common to all opinion leaders. He further advocated that a woman by virtue of her gregariousness is somewhat more likely to be asked for fashion advice. In other words, the fashion leader is not necessarily the most glamorous woman, but rather a woman known personally to the advice-seeker, a woman to whom she can feel free to turn for advice. The gregarious women number in their ranks, proportionately, five times as many public affair leaders as do the women who are not gregarious; the relationship, in fact, is more marked in this area of public affairs than in any other area he examined.⁴⁶ In sum, Lazarsfeld found that

⁴⁵Alvin J. Silk, "Overlap Among Self-Designated Opinion Leaders: A Study of Selected Dental Products and Services," Journal of Marketing Research, Vol. III (August, 1966), p. 259.

⁴⁶Elihu Katz and Paul F. Lazarsfeld, op. cit., p. 288.

highly gregarious women--those who have a large number of friends and belong to several organizations--are two and one-half times more likely to be opinion leaders than women of low gregariousness. Thus, it is imperative that influentials freely socialize, if their role as opinion leaders is to be effective in society.

Lazarsfeld has observed a general tendency of people with like opinions and values to seek each other out as companions. This observation infers that opinion leaders and the people whom they influence are very much alike and typically belong to the same primary groups of family, friends and co-workers. While the opinion leader may be more interested in the particular sphere in which he is influential, it is highly unlikely that the persons influenced will be very far behind the leader in their level of interest. Influentials and influencees may exchange roles in different spheres of influence. Generally a sphere of influence focuses the group's attention on some related part of the world outside the group, and it is the opinion leader's function to bring the group into touch with this relevant part of its environment through whatever media are appropriate.⁴⁷

It is usually conceded that opinion leaders are found on every level of society and presumably, therefore, are very much like the people whom they influence. Therefore, it is not surprising that Lazarsfeld found that influencees turn to influentials of their own status level much more frequently than they turn to those of other statuses. Two reasons might be presented for the tendency of status-bound, horizontal marketing leadership. First, women of like status

⁴⁷Elihu Katz, op. cit., p. 98.

can be expected to have similar budgetary problems and limitations. Therefore, it seems only natural that they should look to members of their own group for marketing advice.⁴⁸ Second, the status consciousness of the participants tends to control the horizontal flow of influence. Individuals above or below a given information seeker's social class would not be expected to share the same attitudes or opinions toward a given subject. Therefore, the value of the information to the influencee may be suspect. Perhaps the most glaring example of this case in marketing is the consumer who is made to feel rejected, implicitly or explicitly, by the snobish atmosphere of certain high class stores. Thus, these individuals will seek out those stores where they feel at ease with their shopping.

Although opinion leaders are distributed fairly evenly at all social class levels, there is some evidence that they function less effectively among blue-collar and lower-income families; while middle-class wives tend to be actively involved in club work and other group activities, this is not generally true of "working class" wives.⁴⁹ Perhaps this is due partly to the fact that lower class wives are predominantly occupied with the environmental triangle of husband, home, and children and therefore, devote less time to social activities.

In retrospect, the Drug Study may best illustrate the acceptance process whereby a product is received into the mass of society. The

⁴⁸Paul F. Lazarsfeld, "Who Are the Marketing Leaders?" Dimensions of Consumer Behavior, Edited by James U. McNeal (New York: Appleton-Century-Crofts, 1965), p. 110.

⁴⁹George A. Field, et. al., op. cit., p. 132.

Drug Study found that the doctors' willingness to try the drug (gammanym) is directly related to their degree of social integration or gregariousness. On the average, the doctors named by many of their colleagues started using the drug earlier than those who were mentioned by few or none of their associates. The study also charts the acceptance pattern of the drug, i.e., how buying influence spread through four different groups of doctors: first, of course, were the socially integrated "innovators" who took the lead, but whose action did not immediately result in a rush to follow suit; the drug was adopted next by the "influentials;" their action was followed shortly by the largest group, the "influencees"; finally, the remaining small groups, the "isolates," who are the least socially integrated of all, adopted the drug.⁵⁰

It is an interesting factor of group dynamics that members of a given society surrender independence of judgment to the opinion leaders who determine the products generally acceptable to the group. The influencees conform to these accepted purchasing patterns of behavior to maintain or increase their acceptance in the particular reference group.⁵¹ Clearly, the paramount task of the marketing strategist is to identify these opinion leaders.

⁵⁰Paul F. Lazarsfeld, "Who Are the Marketing Leaders?" Dimensions of Consumer Behavior, Edited by James U. McNeal (New York: Appleton-Century-Crofts, 1965), p. 108.

⁵¹Ralph S. Alexander and Thomas L. Berg, Dynamic Management In Marketing (Homewood, Illinois: Richard D. Irwin, Inc., 1965), p. 139.

Procedures for Locating the Opinion Leader

According to Paul Lazarsfeld, the key to efficient marketing lies in locating and communicating with the opinion leaders. These influentials through personal contact with small groups, notably family, friends and neighbors, influence the purchasing decisions of the majority of consumers. A number of studies conducted by other experts reinforce this theory.⁵²

Cosmetic firms have learned this lesson well. Frequently, these companies' sales personnel begin their efforts in a community by trying to convince social leaders to purchase their products, then pursue this tactic further by promoting cosmetic parties among these leaders' friends.

Another case in example is the supermarket chain which used this concept of small group influence to assist in the planning and subsequent promotion of a new store. That is, before the store was opened, local leaders in clubs, associations and neighborhood groups were asked for their opinions concerning their likes and dislikes about modern supermarkets. The supermarket executives assured the opinion leaders their ideas would be thoroughly considered and where possible, incorporated into the plans of the store. Then a special open house was held for these opinion leaders just prior to the store's opening. The net result was that the store enjoyed heavy traffic and receipts. The significant success of this operation was attributed to the fact

⁵²Paul F. Lazarsfeld, "Who Are the Marketing Leaders?" Dimensions of Consumer Behavior, Edited by James U. McNeal (New York: Appleton-Century-Crofts, 1965), p. 109.

that the chain store's executives had gained the acceptance to the immediate store by the community's opinion leaders.⁵³

Other means for exploiting the dynamics of this situation may involve free product usage to opinion leaders. Where these influentials can be located, perhaps free samples (for soft goods) or trial basis (for hard goods) usage of goods would prove to be a beneficial marketing strategy. The offer by Chrysler Corporation of an Imperial automobile for a trial period to professional men such as doctors and lawyers is a good illustration of what may be done. Similarly, Continental automobile dealers in one city offered a highly select group of individuals a \$50 bill just to drive their car at a premiere showing of the new model. The Mustang automobile was also introduced by providing college newspaper editors with free use of the car for a given period of time. This form of word-of-mouth promotion has gained such importance that some local marketers have even paid presumed opinion leaders to talk about their products.⁵⁴

The significant influence exerted by opinion leaders over advice seekers concerning the merits of a given product suggests the need for locating and communicating with the opinion leader first when undertaking a sales program. Prospecting the opinion leader should not be a random affair, it ought to be carefully planned. This can be seen in the obvious conclusion that referrals from influencees to opinion

⁵³Elihu Katz and Paul F. Lazarsfeld, op. cit., p. 184.

⁵⁴"What Opinion Do Opinion Leaders Lead?" Printers Ink, Vol. 286 (January 10, 1964), p. 11.

leaders generally will have less sales impact than referrals from opinion leaders to influencees.

Lazarsfeld has one suggestion for locating marketing leaders on a local level. Since opinion leadership of any sort is directly related to social integration or gregariousness, marketing leaders in specific communities could be pinpointed through the membership roles of organized groups such as clubs, civic associations, or the PTA. According to Lazarsfeld, this technique could be a boom for advertisers who work through local dealers and for those who distribute trial samples of products or use direct mail.⁵⁵

The Soil Conservation Service of the Agriculture Department has spent considerable time in refining its techniques in locating neighborhood opinion leaders. Although this procedure is not a suitable technique for identifying opinion leaders in this study, it does underline the importance the government places on personal influence in getting its agricultural programs off to a strong start. The central theme of the SCS's program is to hand pick influentials through personal interviews of a sociometric nature. These influentials in turn pass on the ideas and concepts to their followers. There are also more rigorous questionnaire procedures for identifying opinion leaders.

A common procedure in previous personal influence research has been to locate the names and addresses of opinion leaders through a two-step questionnaire procedure. The first questionnaire obtains

⁵⁵Paul F. Lazarsfeld, "Who Are the Marketing Leaders?" Dimensions of Consumer Behavior, Edited by James U. McNeal (New York: Appleton-Century-Crofts, 1965), p. 110.

pertinent information about the respondent and his chosen opinion leader concerning a given topic or product. An individual must receive a preset number of votes before he is designated as an opinion leader.⁵⁶ Other questionnaire survey procedures are designed around self-designating questions concerning whether the respondent had recently given advice on the given topic. In one such study, it was found that 61 per cent of the opinion leaders rated themselves correctly as influentials.⁵⁷

It should be noted that the criterion for designating opinion leadership is arbitrary. For instance, in the Katz and Lazarsfeld study, an opinion leader was someone who reported one or two such occasions. In contrast, the criterion employed by Merton was that an individual receive four or more votes by other persons to qualify as an influential.⁵⁸

One can readily see that such approaches for locating the influentials concerning a given product would call for a complete sociometric mapping (sociogram) of all geographical areas in which the product is offered for sale. The case of a consumer household product which is being marketed in a large metropolitan area, emphasizes the utter impossibility of this approach. Thus, the task at hand is to develop a procedure for identifying opinion leaders practically and economically in the market place. Once this is done, special

⁵⁶Elihu Katz, op. cit., pp. 85-89.

⁵⁷Paul F. Lazarsfeld, et. al., op. cit., p. 51.

⁵⁸Alvin J. Silk, loc. cit.

communications may be directed to these influentials. The next section proposes a survey design that is thought will achieve these desirable results.

A Survey Procedure to Efficiently Identify
Marketing Opinion Leaders

In the previous section, the magnetic influence of opinion leaders concerning group dynamics was emphasized. Because of the unique role opinion leaders play in directing the productive energies of influencees in the market place, it is generally agreed that a prudent strategy for marketers is to locate these influential persons concerning the product or product area under consideration. Once the opinion leaders can be located, the marketers can go directly to these influentials in seeking to gain their acceptance and good will for their products through the firm's promotional campaign. The success of such a procedure may be a crucial step for the entrepreneur in circumventing the high cost of product failure. A recent report of the United States Department of Commerce estimated that 90 per cent of all new products fail within four years after their introduction.⁵⁹ Gaining the product's acceptance by opinion leaders may go a long way in reducing the cost of such ill-layed plans.

⁵⁹ Steven J. Shaw, op. cit., p. 267.

The Problem of Isolating Opinion Leaders

The sociometric questionnaire procedures used in contemporary opinion leadership research such as "the Rovere Study"⁶⁰ require a two-step questionnaire procedure (verbal or written) to be administered in identifying potential opinion leaders. The first questionnaire requests that respondents name an individual whom they would turn to for advice on a given product or service along with specific information about themselves. A second questionnaire is then administered to those individuals (opinion leaders) enumerated in the first questionnaire. The second survey seeks information on the opinion leader and the related product or service under consideration. Again, the purpose of this procedure is based on the premise that if the marketer can reach the opinion leaders associated with a given product area, then the marketer can obtain strategic information from the influentials pertinent to the design and promotion of the product in the market place. Since all opinion leaders have a sphere of influence, it is posited that once the "good will" of opinion leaders is won for a given product, then these influentials will pass their favorable impressions of the product on to the social groups with which they are associated. Thus, opinion leaders are reasoned to be significant forces in the marketing environment.

However, the problem arises in that the present survey procedure, described above for identifying opinion leaders, is far too costly and time consuming for most firms. The impracticability of utilizing

⁶⁰Elihu Katz, op. cit., p. 85.

this procedure on a large scale can readily be seen in the sociometric nature of its results which require an individual to be named two or more times before he can be designated as an opinion leader. That is, for a firm to blanket a metropolitan area with a sufficient degree of confidence of receiving adequate information on influentials, would represent a monumental undertaking. Thus, one can see the diversity of inter-personal relationships and the prodigious task involved in surveying and interpreting the results from a large universe such as a town or city. Few companies could conceivably carry out such an expensive procedure. In addition, it is doubtful that the expense would justify the results. Consequently, marketing opinion leaders remain a largely unexplored entity in the annals of marketing literature, primarily because of the general lack of efficient procedures for identifying them.

Hypothesis and Plan of the Opinion Leadership Research

In order to improve on the available procedures for identifying opinion leaders, the following hypothesis is proposed:

A single self-designating questionnaire survey can be designed and evaluated to differentiate between opinion leaders and influencees concerning a given product area.

The responses to the questionnaire can be analyzed through computer technology so that self identification of opinion leadership will become both a practical and efficient marketing strategy. Such a procedure has the advantage of drastically reducing the time and cost involved in identifying opinion leaders concerning a given product area. The result would be a significant increase in the flow of intelligence on opinion leaders as well as providing firms with an efficient and

economical sounding board for testing the merits of their product design and promotion campaign.

Preliminary Planning. To adequately test the feasibility of the survey design hypothesis, it was posited that the test universe should possess several important characteristics. Ideally, the respondents should be easily isolated into distinct subuniverses as a result of the sociometric nature of this research. There should be a high probability of obtaining the respondent's cooperation as well as a considerable response expected in this project. A common product used universally in most American households should be applicable to this universe. Lastly, the respondents should be accessible not only to the primary survey but to follow-up, post-questionnaire interviews.

Based on these criteria, the sorority system (representing approximately 1000 members) on the campus of Louisiana State University was chosen as the test universe. It was judged this universe seemed to possess the characteristics necessary to adequately test the feasibility of the above hypothesis. Further, the product area of cosmetics (certainly a major concern of most social-minded sorority members) was selected because of its universal use and interest to most co-ed collegiates. Additional research concerning the merit of this product area indicated that 18- to 25-year olds spend more on cosmetics than any other age group in the country.⁶¹ However, actual statistics were unobtainable because of the competitive nature of this industry.

⁶¹Information received from the research department of Mademoiselle Magazine (New York).

A letter was sent describing the survey proposal to the Bureau of Applied Social Research at Columbia University. The Bureau, known for its research in this area, responded with an affirmative reply (letter included in Appendix A) concerning the merit of pursuing this research project. Next, the Dean of Women's Office and the Panhellenic Council (intra sorority council) were contacted for their cooperation in this project. Once their cooperation was obtained, the questionnaire design was next on the agenda.

Questionnaire Design. The questionnaire was designed to be administered to the relatively closed universe of the sorority system on the topic of cosmetics. The questionnaire (complete form found in Appendix A) is composed of two parts. Part One involves group identification information concerning the characteristics relevant to cosmetic opinion leaders. Part Two provides personal information on the respondent to be evaluated in determining whether the individual appears to be an opinion leader or influencee on the topic of cosmetics.

However, to proceed more slowly, Part One (A) requests that respondents select an opinion leader from the closed ranks of their immediate sorority on the topic of cosmetics. The questionnaire was administered to only the active members of these sororities; therefore, the designated opinion leaders must be confined to the active members and not the pledges of these organizations. It was reasoned that the active members of the sorority would probably be the best group to test because they would generally be more familiar with each other than a mixed group of actives and pledges. Part One (B) requests general information from all respondents concerning the characteristics perceived as common to the opinion leader listed in Part (A).

Part Two (A) commences with the personalized data designed to differentiate between the opinion leaders and influencees. This section is designed to determine if there is a difference between the attitude ratings of opinion leaders and influencees toward the product area of cosmetics. Part Two (B) requests factual information on the experience of the respondent in giving advice on the use of cosmetics. This section serves as a basis for correlating the experiences of respondents with certain specific attitude strengths toward the topic of cosmetics. Part Two (C) requests information concerning the age which the respondents began using cosmetics, the source where the respondents receive their ideas on beauty aids and the relative amounts of money these individuals spend on cosmetics. Part Two (D) is designed to determine whether there is any significance to a respondent's self-designated sphere of influence and how effective and influential this individual might be in comparison to other opinion leaders. The following section will discuss the reasoning behind the design of this questionnaire.

Strategy of the Questionnaire. Each sorority respondent was requested to place her full name on the questionnaire so that appropriate records could be kept of the votes each individual received as an opinion leader. Also, since the survey was confined to only active sorority members, any pledges filling out the questionnaire by mistake could be deleted from the study. Complete identification would also facilitate the coordination of follow-up interviews of the opinion leaders at the completion of the survey.

Next, each respondent was requested to name one active sorority sister they would turn to for advice on their cosmetics. This request was based on the premise that opinion leaders in a given universe could best be identified and studied by asking people to whom they turn to for advice on a given subject.⁶² Since none of the previous opinion leadership studies have been consistent in the number of votes a respondent needs to be classified as an opinion leader, this study has arbitrarily stipulated that a respondent needs three votes before she can be classified as an opinion leader.

In Part One (B) a list of factual questions were developed to provide a profile of the cosmetic opinion leader drawn from the group's consensus of the typical characteristics possessed by these influentials. Ideas for information to be developed in this section were gleaned from such studies as Personal Influence and The People's Choice as well as independently. It was intended for this section to be as complete as possible in covering the numerous characteristics which cosmetic opinion leaders might be expected to possess. It is posited that information drawn from this section may be general enough in nature to be applicable to the characteristics of opinion leaders in other marketing areas.

The attitude section, Part Two (A), was developed to test the merit of the idea that if an individual perceives a certain product area and its related activities as contributing in greater proportion to her goal attainment, relative to other people, she will reflect this

⁶²Paul F. Lazarsfeld, et. al., op. cit., p. 49.

feeling in stronger attitudes toward that sector.⁶³ Thus, this factor may contribute to the feasibility of separating opinion leaders from influencees through self-designation.

However, since questionnaire design and interviewing methods are perhaps the least developed parts of attitude research,⁶⁴ considerable thought was given to the best method for evaluating these attitudes. Although various techniques for the measurement of attitudes have been suggested in Chapter III, the two most frequently used methods are probably the "method of equal appearing intervals" developed by Thurstone and Chave and the "method of summated ratings" developed by Likert. Finally, the Likert attitude scaling technique was chosen over the Thurstone method for the following reasons:

(1) The evidence available indicates that the attitude of the judging group is not an important factor determining the scale values of items sorted by the Thurstone technique.

(2) Scales constructed by the Likert method will yield higher reliability coefficients with fewer items than scales constructed by the Thurstone method.

(3) What evidence is available seems to indicate that the Likert technique is less time consuming and less laborious than the Thurstone technique. But additional research is needed on this point and should be based on carefully kept time records.

⁶³Marvin E. Shaw and Jack M. Wright, op. cit., p. 6.

⁶⁴Raymond A. Bauer, "Attitudes, Verbal Behavior, and Other Behavior," Attitude Research at Sea, Edited by Lee Adler and Irving Crespi (Chicago: American Marketing Association, 1966), p. v.

(4) It is true that Likert-selected items tend to be those which would fall at one or the other extreme on the Thurstone continuum, if scaled according to the Thurstone technique. But the implication of this finding is more theoretical than practical as far as the need for a judging group is concerned. The important problem is whether scores obtained from the two differently constructed scales are comparable and the evidence at hand indicates they are. There seems to be nothing of a practical nature to indicate that a judging group, in the Thurstone sense, is a prerequisite for the construction of an adequate attitude scale.⁶⁵

(5) Finally, Likert (1932-33) has shown that the simple a priori method of scoring in arbitrary units (1 to 5) when applied to these rational scales may yield results as reliable as do the psychophysical scores themselves. The agreement between the two methods is approximately 90 per cent. This fact may give comfort to investigators who wish to avoid the more complex procedures of the Thurstone method.⁶⁶

Part Two (B) requests factual information on the recent experience of the respondent in giving advice on cosmetics. The idea to use such self-designating techniques was modeled after the opinion leadership survey in Katz and Lazarsfeld's research, Personal Influence. In the light of recent writings, it is worth recording that researchers have generally found a discernible, positive relationship between various measures of attitudes and the overt behavior with which they are

⁶⁵Allen Edwards and Kathryn C. Kenney, op. cit., p. 255.

⁶⁶Ibid., p. 11.

associated.⁶⁷ However, because of such problems as status, emotion, consistency, and memory, overt attitudes are not always an accurate indicator of behavior. That is, what people say they do and what they actually do have been known to be different. Therefore, the combination of an attitude section and an experience section serve as a check and balance to each other in a thorough analysis of expected behavior.

Part Two (C) was originally designed to gather personal information concerning each respondent's cosmetic utilization. It was hoped some further identifying information might be brought out which heretofore had not been considered. However, after pre-testing the questionnaire, several questions appeared superfluous and were deleted.

Part Two (D) was based on Lazarsfeld's work as well as the Drug Study.⁶⁸ Gregariousness and social integration were predominant factors in qualifying an individual as an opinion leader in these studies. In other words, the greater the extent of a given person's social contacts, the greater one's chances of emerging as a marketing leader.⁶⁹

In consideration of this information, this section was designed to determine if there were significant differences in the spheres of influence in opinion leaders and influencees. Also, in this section it was intended to determine if there were marked differences in the spheres of influence between high and low voted opinion leaders.

⁶⁷Raymond A. Bauer, op. cit., p. 4.

⁶⁸James Coleman, et. al., op. cit., p. 113.

⁶⁹Elihu Katz, op. cit., p. 92.

Finally, it was sought to determine if there was a correlation between the number of votes opinion leaders received and any facet of their sphere of influence such as friends, organizations and offices held. With the psychological premises of the questionnaire thoroughly understood, the next step was to pretest the questionnaire.

Pre-testing the Questionnaire. The first draft of the questionnaire was drawn up and pre-tested with the ten secretaries associated with the College of Business Administration on the campus of Louisiana State University. Numerous suggestions were received and incorporated in improving the readability and design of the questionnaire. Next, the revised version of the questionnaire was administered to the 34 active members of the Alpha Chi Omega sorority. The results of this pre-testing session substantiated an earlier conclusion to delete several questions which were not contributing usable information to the test results. This session also gave an adequate range of numbers to allow all the questions in the questionnaire to be closed, i.e., complete answers were provided for each question from which the respondent was required to select the answer she felt to be the most appropriate one concerning the immediate question. This decision to close all the questions was based on previous research which concluded open questions should be eliminated from full-scale surveys wherever possible. To quote from Dr. Dohrenwend's report, "Our results suggest that it is generally to the investigator's advantage to use well-tested closed questions rather than open questions."⁷⁰ It was posited that

⁷⁰Stanley L. Payne, "Return to Quantification," Attitude Research at Sea, Edited by Lee Adler and Irving Crespi (Chicago: American Marketing Association, 1966), p. 87.

closed questions would not only improve on the accuracy of the test results but expediate the administration of the questionnaire. Ironically, the average time for questionnaire completion in the pre-test sessions was 20 minutes versus 30 minutes in the regular testing sessions. The only explanation proposed is that the closed questions made it easier for the respondents to conceptualize the dimensions of their answers and, therefore, give them more thought. Once all the ramifications of the questionnaire design have been elucidated, it is essential to present the methodology for analyzing the opinion leadership study.

Methodology for Analyzing the Opinion Leadership Survey

Since full names were requested of respondents and their chosen opinion leaders on the questionnaire, a simple head count tallied on the sorority's roster sufficed to record opinion leaders as well as restrict the survey to just the active sorority members.

In Part One (B) only an average profile of cosmetic opinion leadership characteristics was sought. Therefore, a simple frequency test was all that was needed to determine the general characteristics the sorority members perceived as being typical of the cosmetic opinion leader. However, further analysis of the means of the opinion leader's answers and influencee responses did not disclose a significant difference in perception for this section nor did separate analyses of each sorority's cumulative answers show a significant difference in response pattern.

In Part Two (A), (B), (C), (D), analyses were planned to determine whether the hypothesis that opinion leaders and influencees can be differentiated through the design and evaluation of a self-designating questionnaire survey is true. Such analyses can begin by determining if there is a difference in the mean scores of the three groups (opinion leaders with three or more votes, questionables with one or two votes and influencees with no votes) analyzed in this study.

The first step in preparing for a statistical decision is to set up a null hypothesis and a corresponding alternative (mentioned above) hypothesis. Broadly speaking, the logical idea underlying the theory of hypothesis testing is the same as that in the mathematical method known as "the indirect proof" or "proof by contradiction." Therefore, it is a common practice to start with a hypothesis that there will be no difference in the way all sorority members or sororities answer the survey questions. In other words, the opinion leaders, questionables, and influencees will answer all the survey questions similarly. However, a null hypothesis is enunciated with the intention of seeing whether, in light of the sample data, it cannot be rejected. If the null hypothesis is rejected at some predetermined significance level, then the alternative (opposite) to the hypothesis is considered to be true.

The statistical analyses used to determine the relationship between the mean scores for the opinion leaders, questionables, and influencees were the Analysis of Variance. This method is used for indicating which of the sources of variation are making a significant contribution to the differences which may exist between means of

treatment--sorority combinations, i.e., those differences which could not reasonably be attributed to chance. In essence, this procedure will statistically determine if the mean scores of the three groups (opinion leaders, questionables, and influencees) are equal. Again, a null hypothesis is advanced that the three mean scores are equal and the null hypothesis is accepted unless the F ratio is greater than a predetermined figure based upon degrees of freedom. When the F ratio is larger than the predetermined figure, the null hypothesis is rejected at a .01 or .05 significance level and the mean scores for the universe are assumed different. Note that one cannot disprove the null hypothesis, the research can only demonstrate its improbability, i.e., a ($P < .05$) or ($P < .01$) chance the hypothesis is true but it has been rejected.

Such analysis of variance may indicate that some variables in the sorority universe show significant difference between opinion leader, questionable, and influencee means while others do not. However, since the variables are likely to be highly correlated, they cannot be treated as independent. It may well be that only a small number of the variables with significant differences in means are contributing to discrimination among the group while other variables, which by themselves provide no means of discrimination, may aid considerably when taken in conjunction with the rest. It is only by study of the entire constellation of points that the researcher can recognize which variables are useless and which provide real evidence concerning group separation. Thus, the analysis is epitomized in the determination of the group (opinion leader or influencee) a given sorority member is

most like. The multiple discriminant function is proposed as one of the most appropriate techniques for achieving this end.

To conceptualize this technique, picture a set of n measurements for each sorority respondent which is represented by a point in a n dimensional space defined by the n variables. If two different colors (red and blue) were used in plotting the sorority respondents in each of the different groups (opinion leaders and influencees), the problem would become one of seeing whether in the n dimensional space the red points tended to be segregated from the blue ones.

In 1936, R. A. Fisher proposed a linear function of the variables, x_i ($i = 1, 2, \dots, n$), such that y equals $v_1 x_1 + v_2 x_2 + \dots + v_n x_n$. The total sum of squares of this linear function can then be broken up into two parts. A part with n_1 degrees of freedom which is the between means of groups sum of squares and a part with n_2 degrees of freedom which is the within group sum of squares. The coefficients of the linear function of the x 's are chosen so that the ratio of the between mean of groups sum of squares to within groups sum of the squares is a maximum. This ratio can be used as a basis to test the hypothesis that the two points representing the position of the n means of the groups in the n dimensional space occupy the same point for the populations under consideration. The linear function of the x variables which maximizes the ratio of the between means of groups sum of squares to within group sum of squares has been named a discriminant function.⁷¹ The following illustration will demonstrate how

⁷¹David V. Fiedeman, "The Utility of the Discriminant Function in Psychological and Guidance Investigations," The Harvard Educational Review, Vol. 21 (Spring, 1951), p. 73.

the discriminant function will serve the analysis of this study.

Suppose an individual is drawn from a mixed population consisting of two distinct groups (opinion leaders and influencees) in the ratio:

$$\pi_1 : \pi_2 \text{ where } (\pi_1 + \pi_2 = 1).$$

If α_1 = chance of wrongly classifying an individual of the first group by following a given procedure and

α_2 = corresponding chance for second group.

Then the probability of wrongly classifying an individual chosen at random is

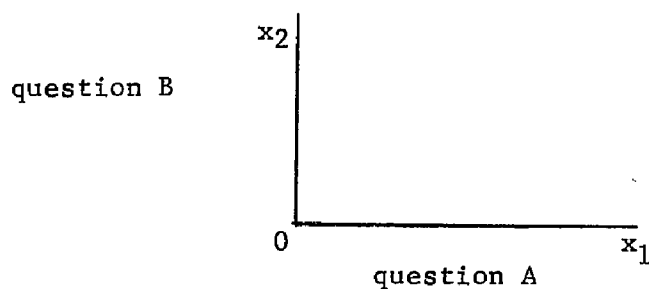
$$\pi_1 \alpha_1 + \pi_2 \alpha_2 .$$

The procedure to use is the one which minimizes this probability. The situation can be graphically explained more easily by restricting the number of measurements per individual to two (two-dimensional space).

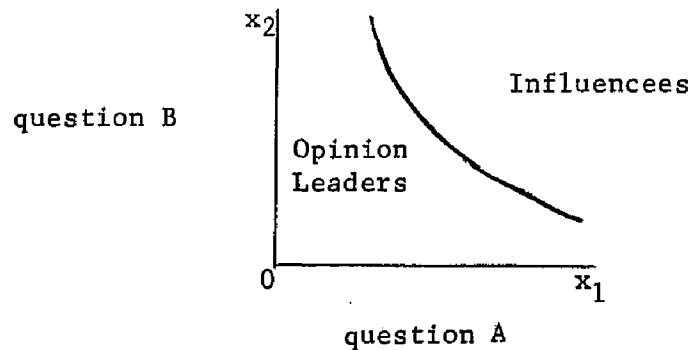
Consider two measurements on each individual in a problem to discriminate opinion leaders from influencees, say

1. question A (x_1)
2. question B (x_2)

Let both of these questions be distributed over a continuum such that they can be represented on the following axis.



By dividing this graph into two portions, we can separate the two groups into their respective positions according to their values for x_1 and x_2 (decision criteria).



This same method can be extended to p -dimensional space. Of course, graphic representation of this is impossible.

Suppose our discriminant function takes the following form:

$$I = \lambda_1 x_1 + \lambda_2 x_2 .$$

where I = the combined or index score

x_1 = value for question 1

x_2 = value for question 2

$\left. \begin{matrix} \lambda_1 \\ \lambda_2 \end{matrix} \right\}$ = optimum weights for minimizing probability of misclassification.

The average value of:

(1) x_1 for opinion leaders is $\bar{x}_1 p$

(2) x_1 for influencees is $\bar{x}_1 f$

(3) x_2 for opinion leaders is $\bar{x}_2 p$

(4) x_2 for influencees is $\bar{x}_2 f$

and

\bar{I}_p = average of I for opinion leaders

\bar{I}_f = average of I for influencees.

Define:

$$D = \bar{I}_p - \bar{I}_f .$$

Then:

$$\bar{I}_p = \lambda_1 \bar{x}_{1p} + \lambda_2 \bar{x}_{2p}$$

$$\bar{I}_f = \lambda_1 \bar{x}_{1f} + \lambda_2 \bar{x}_{2f} .$$

Let: $d_1 = \bar{x}_{1p} - \bar{x}_{1f}$

$$d_2 = \bar{x}_{2p} - \bar{x}_{2f}$$

where: $D = \lambda_1 d_1 + \lambda_2 d_2 .$

The minimization of misclassification involves making D as large as possible with respect to sampling variance of I_p and I_f by adjustment of λ_1 and λ_2 .⁷² This is easily done by applying a multiple regression technique. In the immediate case the discriminant function contains eight variables which can be summarized by the following equation:

$$d_i = \sum_{j=1}^8 [\lambda_j \cdot \sum_{k=1}^8 (x_{ik} - \bar{x}_i)(x_{jk} - \bar{x}_j)] \quad i = 1, 2, \dots, 8.$$

However, before this procedure is implemented, one should remain cognizant of the limitations and assumptions underlying this analysis. These factors are as follows:

(1) The parameters (λ_1 and λ_2) are not known but are estimated from a sample.

⁷²C. Radhakrishna Rao, Advanced Statistical Methods in Biometric Research (New York: John Wiley and Sons, Inc., 1952), p. 286.

(2) The original classification is not exact (i.e., the original classification of influencees and opinion leaders).

(3) The elimination of certain factors while others were retained leaves more chance for error (recall that analysis of variance was used to check this).

With a general knowledge of the quantitative techniques used in analyzing the data of this research project, attention can now be focused on the task of presenting the results of this survey.

Presentation of the Opinion Leadership Survey Results

First, a resume of the survey criteria will be presented in this section. This area will then be followed by the results derived from Part One (B) and finally the salient information brought out in the analyses of Part Two (A), (B), (C), (D).

Resume of the Opinion Leader Survey Criteria

Description: The subjects responded to a 48-item questionnaire. The questions were forced choice (the closed parameters were set in the pre-testing sessions) and were represented by a 1 to 5 constant interval rating scheme. In the attitude section a Likert scale technique was used in conjunction with factual content (actual advice giving experience) questions in an effort to differentiate between the questionnaire responses typical of cosmetic opinion leaders and responses common to influencees.

Subjects: The study involves the active members of eight sororities. Six sororities (Alpha Chi Omega, Alpha Delta Pi, Alpha Omicron Pi, Kappa Alpha Theta, Alpha Xi Delta, and Gamma Phi Beta) were tested in the

primary investigation and two more sororities (Phi Mu and Delta Gamma) were tested in the secondary investigation. These sororities are located on the campus of Louisiana State University. The sororities tested in this survey were selected by Miss J. C. Waits, Assistant Dean of Women, based on their representativeness and cooperative spirit. Of the total 248 active sorority members in these organizations, 218 usable questionnaires were obtained giving a preliminary response return of 88 per cent. Once the primary data was processed, the two remaining sororities were surveyed (both survey sessions took place in the spring semester of 1968). The sororities were represented by 155 active members from which 142 usable questionnaires were obtained in a 91 per cent return. The testing sessions were administered just prior or just after the Monday evening sorority meetings. The instructions and complete questionnaire may be found in Appendix A. Every effort was taken in the testing sessions to eliminate biasing the results through unnecessary description of what was being sought in the test results.

Response Mode: The subjects responded to closed questions which were represented by a 1-to-5 constant interval rating scheme. In the attitude section, the respondents were requested to respond to one item on a 5-point continuum: strongly disagree, disagree, neutral, agree, strongly agree.

Scoring: In the group section Part One (B), a simple system of the sum of the item scores was used. However, in the personalized sections Part Two (A), (B), (C), (D), an analysis of variance was used to determine the questions differentiating the means of opinion leaders

(three or more votes), questionables (one or two votes), and influencees (no votes). Next, the significant variables were calculated into the multiple discriminant function which subsequently derived an index score to segregate opinion leader types from influencee-type respondents.

Reliability: The simplest definition of reliability concerns the degree to which a scale yields consistent scores when the attitude is measured a number of times.⁷³ The Spearman-Brown prediction formula was used to test the reliability of the attitude section, Part Two (A). This test rendered an .81 reliability coefficient based upon the responses of 218 sorority members. See Appendix B for further details on this method and its computation.

Validity: The scale was shown to discriminate between opinion leaders and influencees with the opinion leader scores consistently ranking higher on all selected questions than the influencees and questionables. As a result, the composite scores of the questionables and influencees could be summed together and evaluated against the opinion leader scores. The mean score for the opinion leaders for the pertinent questions was (3.60) versus (2.99) for the influencees (composite score of influencees and questionables). That is, opinion leaders showed stronger reactions to selective phases of cosmetic activity than did influencees at ($P < .01$) or ($P < .05$) levels of significance.

Comments: There is rather limited evidence concerning the characteristics of this scale. In reviewing the results, one should remain

⁷³Marvin E. Shaw and Jack M. Wright, op. cit., p. 16.

cognizant of the human frailty of the desire for self enhancement. Thus, the results should not be taken at face value but rather should be seen as relative to sorority members on the L.S.U. campus. Nor should broad conclusions be drawn from these results to include other sectors such as housewives, etc. Each group should be tested individually keeping in mind responses and results may be expected to vary in testing other universes.

Determining the Profile of the Typical Cosmetic Opinion Leader

The combined frequency and percentage tabulation for the responses in Part One (B) may be found in Appendix C. The purpose of this section was to develop a profile of the typical opinion leader by averaging the responses to each of the questions in this section. To investigate the possibility that different classes (categorically designated by the number of votes received by sorority members) of respondents may perceive the questions differently, the data was subsequently broken down by class and analyzed. This material may also be found in Appendix C. However, little significance was found in a comparison of the mean scores in these selective class tables nor did the sororities taken individually and evaluated against each other show significant differences in the way they answered the questions.

To develop a profile of the typical cosmetic opinion leader, this analysis will proceed chronologically down the list of seventeen questions in Part One (B). To review the context of each question, see the complete questionnaire in Appendix A.

To begin, in the immediate study the cosmetic opinion leader was considered by the respondent to be a friend in 71.6 per cent of the

cases recorded. This observation generally correlates with Katona and Mueller's findings that consumers frequently turn to close confidants (friends and relatives) for advice on purchases. However, their study concerned information-seeking about durable goods.⁷⁴

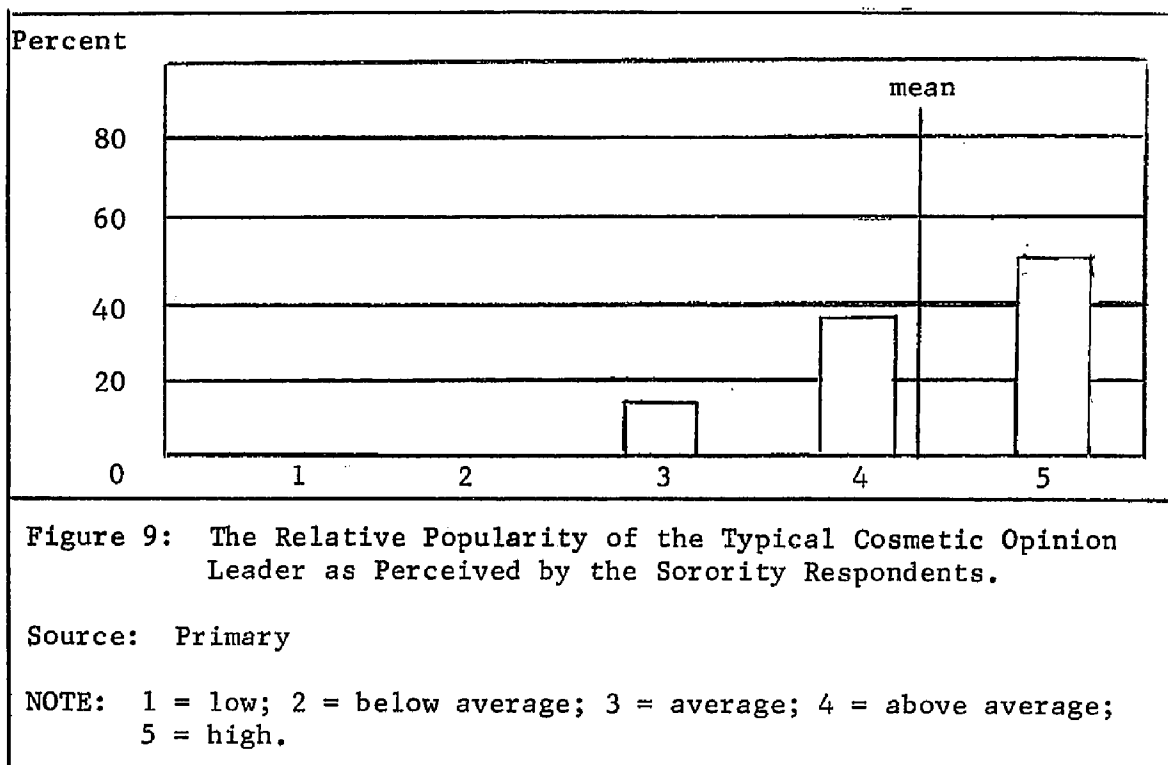
The popularity of the average cosmetic consultant within the immediate sorority was relatively high (mean score 4.30 on 5-point continuum). Figure 9 illustrates the clustering of this vote by the sororities tested. Lazarsfeld in his research considered this attribute of popularity (gregariousness) as having the greatest correlation to opinion leadership of the variables (gregariousness, life cycle, social status) he studied. He states that those persons who have a large number of friends and belong to several organizations are two and one-half times more likely to be marketing leaders than women of lowest gregariousness.⁷⁵

The appearance (neatness, figure, grooming) of the typical opinion leader, as might be expected, ranges from attractive to very attractive with the distribution between these higher intervals fairly even. The mean score (4.08) of the average response underlies the idea that the opinion leader is certainly a person in whom one has confidence for his particular knowledge or talent in the area under consideration.⁷⁶ Obviously, a cosmetic opinion leader would be expected to be attractive to bolster this confidence.

⁷⁴John A. Howard, Marketing Management Analysis and Planning (Homewood, Illinois: Richard D. Irwin, Inc., 1963), p. 71.

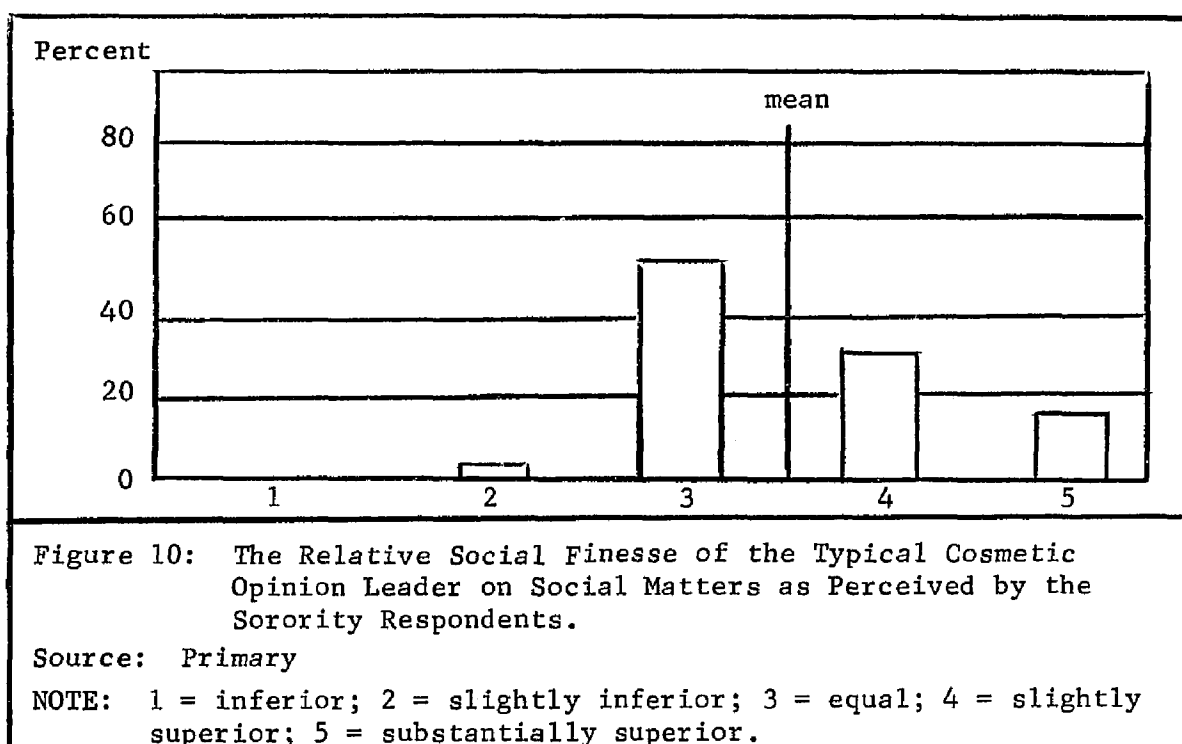
⁷⁵Elihu Katz and Paul F. Lazarsfeld, op. cit., p. 242.

⁷⁶Ibid., p. 140.



The cosmetic confidant was generally thought of as a person of relatively equal stature on social matters. Perhaps the mean score (3.54) of the average response would imply the influencee perceived the influential to have a slight advantage over her in this area. The significance of the response distribution to this question can be seen in Figure 10. Lazarsfeld explained this trait by suggesting women are likely to turn to those individuals who face problems like their own and this fact would reinforce the likelihood that the consultee would seek out opinion leaders within her own status level.⁷⁷ Of course, within the relatively closed society of a given sorority, it would be reasonable to expect that most of the members have had somewhat similar experience.

⁷⁷Ibid., p. 264.



It is interesting to note that one's scholastic reputation is not a significant factor in cosmetic opinion leadership as indicated (mean score 4.17) by 66 per cent of the respondents. Thus, it appears a cosmetic opinion leader's academic credits have very little to do with criteria for qualifying her as an influential. Katz and Lazarsfeld support this finding by the observation that, "There is strong evidence that what counts at least in marketing leadership is the intensive, everyday experiencing of marketing problems."⁷⁸ Thus, in this particular case at least, experience seems to be a more valued attribute sought in the cosmetic opinion leader than academic reputation.

Further support of the above findings concerns the matter of common sense. Certainly academicians are well aware that common sense

⁷⁸Ibid., p. 240.

and scholastic achievement are not necessarily one and the same. Sound judgment is an attribute sought in all leaders and is honed by experience. In view of this, it seems little wonder that the mean score of the cosmetic confidant's inherent quality of common sense was averaged at (3.94) along the 5-point evaluation continuum.

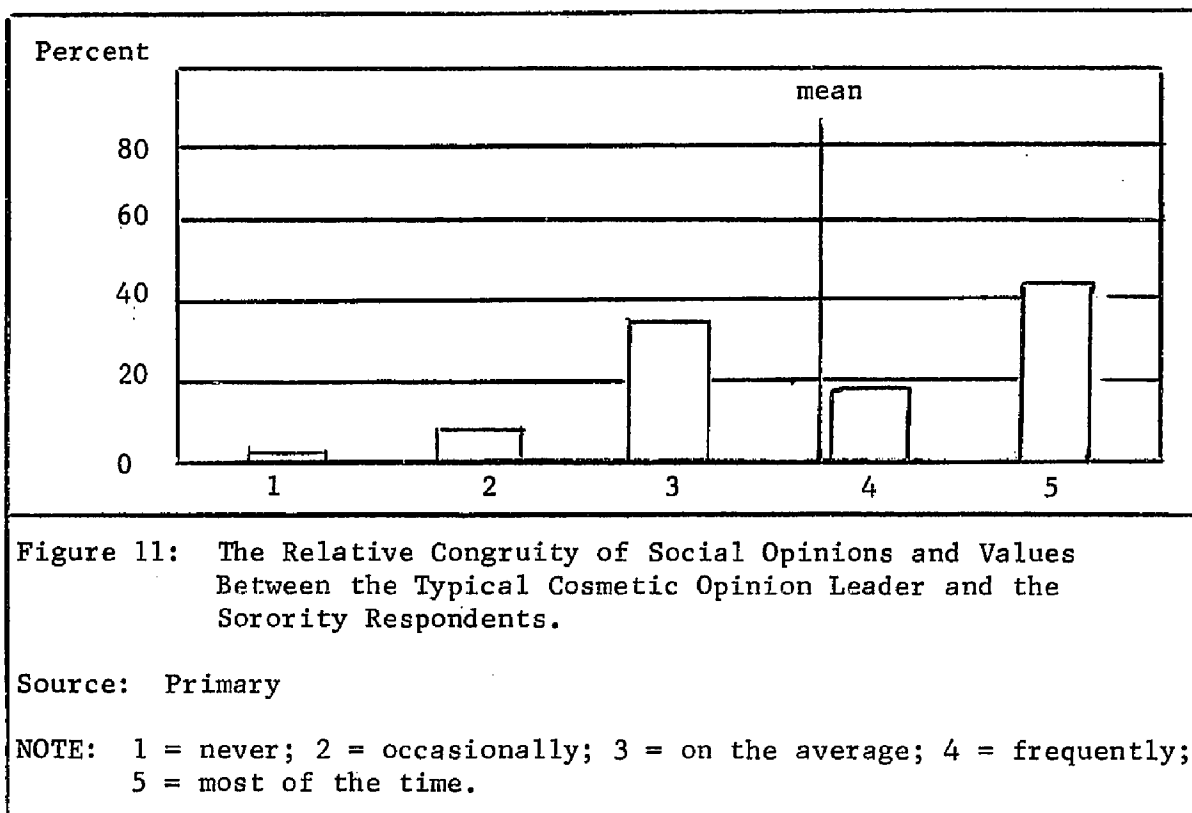
As might be expected, the social class of the opinion leader as compared to the social class of the influencee was found to be about even (mean score 3.17). It has been concluded by previous studies that opinion leaders are found on every level of society and presumably, therefore, are very much like the people whom they influence.⁷⁹

Figure 11 demonstrates the relatively high degree of similarity between the values and opinions of cosmetic influentials and influencees on social matters. There seems to be a general tendency of people with like opinions and values to seek each other out as companions.⁸⁰ There is little reason to believe this tendency would not hold at the sorority level.

In view of the emphasis placed on social interaction (gregariousness) of opinion leaders, they could be expected to be fairly active in sorority affairs. A mean score of (3.60) places the typical influential in this study above average in participation in sorority sponsored activities. A lack of participation in sorority affairs would probably nullify the status and ultimately their effectiveness as an opinion leader.

⁷⁹Elihu Katz, op. cit., p. 83.

⁸⁰Elihu Katz and Paul F. Lazarsfeld, op. cit., p. 59.

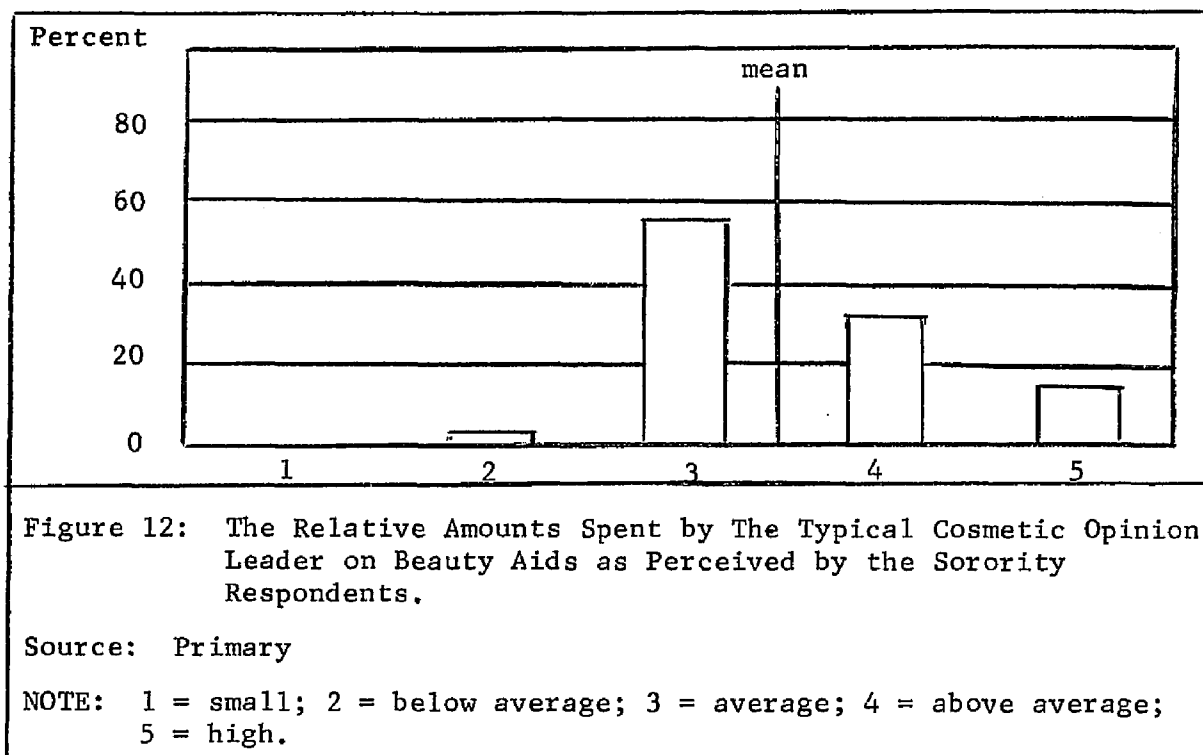


The fashion consciousness of the typical cosmetic opinion leader in this study was high with a mean score of (4.13) as might be expected. Thus, the chances that a girl with a high interest will be consulted by another girl seems particularly great.⁸¹ Perhaps interest can be thought of as a prerequisite to competence in fashion matters.

Information was sought to determine if by chance the sorority members may have perceived cosmetic influentials as spending substantially more on beauty aids than their less influential sorority sisters. As can be seen in Figure 12 there seems to be little significance to the idea that influentials experiment and/or manifest more elaborate tastes in cosmetics and related products which may ultimately lead to

⁸¹Ibid., p. 253.

relatively greater amounts of funds being spent on beauty aids by opinion leaders.



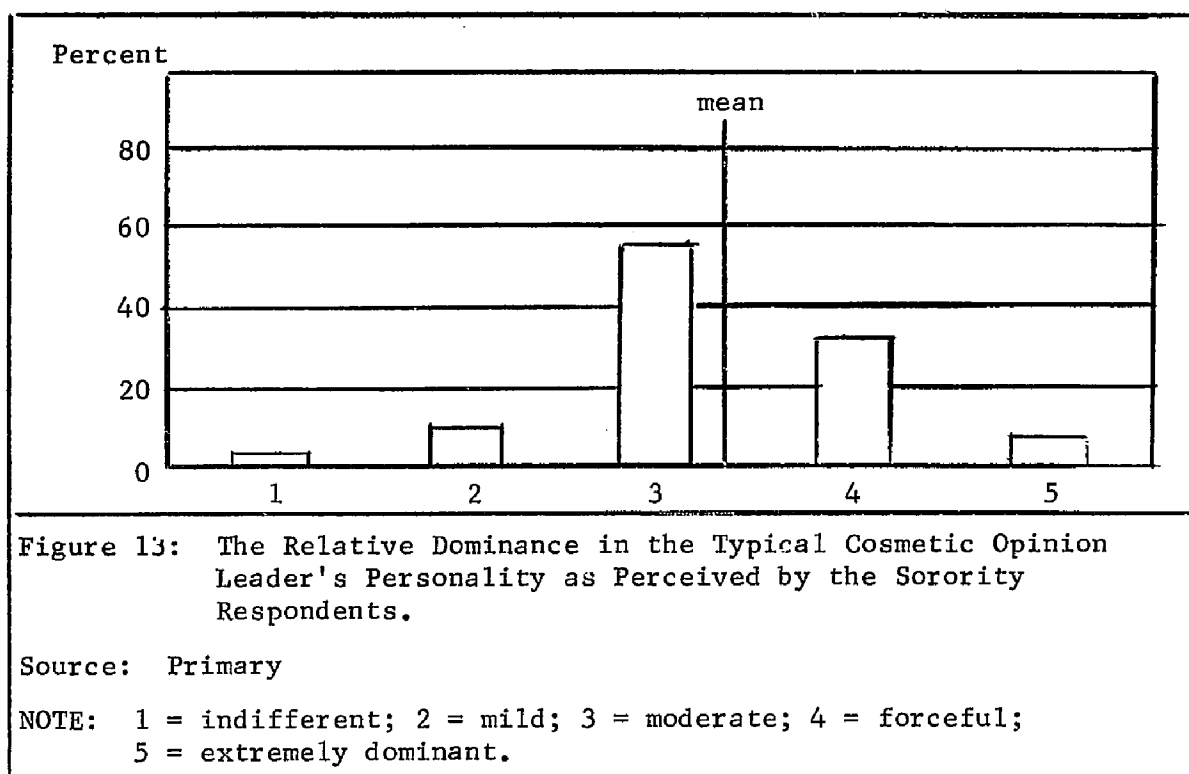
The sorority cosmetic opinion leader is relatively easy to locate for her advice. The typical influential manifests a mean score of (3.72) along the convenience continuum. This is a significant factor since individuals are most likely to choose their confidants mainly from their own social group.⁸² The Rovere Study reports that the leadership of the local influential is based on their central location in the web of interpersonal contacts.⁸³

Some question has been raised that perhaps opinion leaders can be differentiated in part by a psychological trait of dominance, i.e.,

⁸²Ibid., p. 286.

⁸³Elihu Katz, op. cit., p. 95.

these influentials may diligently seek information as a means to acquiring a power orientation from others in the group.⁸⁴ On the other hand, they may tend to be especially cooperative and good natured and to pass along information in a helpful vein. Figure 13 might be seen to demonstrate that the dominance trait of cosmetic opinion leaders seems to pertain to a small minority in this study. Perhaps the latter point of wanting to be helpful is more descriptive of the central motive of these particular cosmetic opinion leaders.

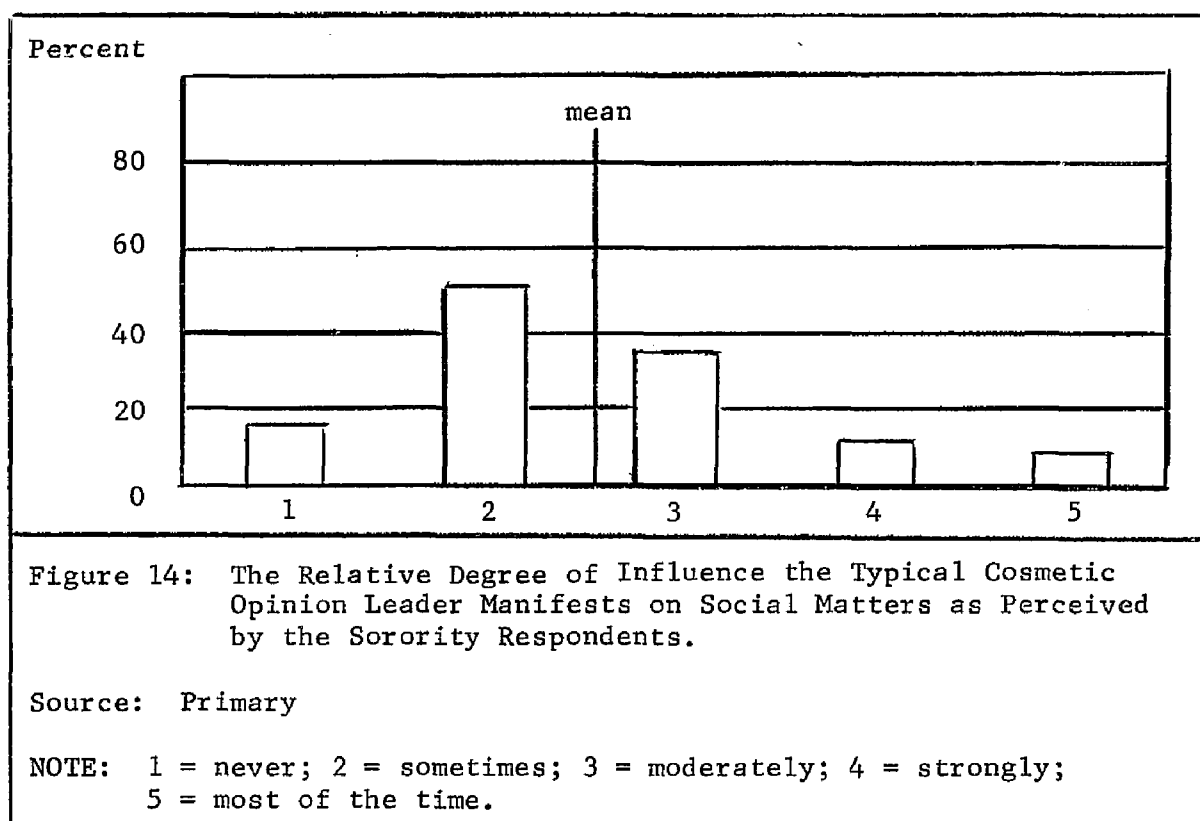


Again, the skill and experience the cosmetic confidant demonstrates in applying her own make-up seems to be among the major factors (mean score of 4.56) leading to her success as an influential. Lazarsfeld has

⁸⁴James H. Myers and William H. Reynolds, *op. cit.*, p. 308.

observed that opinion leadership is not so much a trait which some people are born with and others are not but rather that it is a response of individuals reacting together to the situation in which they find themselves.⁸⁵ Thus, competence demonstrated in applying make-up may be seen as a major factor in qualifying as a cosmetic opinion leader.

This point concerning the situational role of opinion leaders might be further emphasized by Figure 14, which illustrates the small degree of influence the average cosmetic opinion leader manifests over other social matters.



⁸⁵Elihu Katz and Paul F. Lazarsfeld, *op. cit.*, p.99.

It would seem obvious that the cosmetic influential must be willing to give advice on beauty aids to qualify as a confidant. The mean score of this question (4.15) bears out just how obvious this fact is to the sorority cosmetic influencee.

The all inclusive classification of social consciousness of the typical cosmetic confidant appears to be well above average with a mean score of (3.68). Perhaps opinion leaders can be partly characterized by their greater relative attention to the entire area within which their leadership may fall.⁸⁶

In sum, the typical cosmetic opinion leader in this survey may be thought of as an attractive person who is polished socially and demonstrates competence in applying her own make-up. She is generally considered to be a friend by the influencee and a gregarious, active member in the sorority. Her scholastic achievement bears little significance but rather her good judgment and experience in this area seem to be central factors qualifying her for this role. The typical cosmetic consultant is usually considered on an equal social plane with her influencees. The cosmetic opinion leader is very fashion conscious and is both willing and accessible in giving her advice on beauty aids. She seems to be genuinely motivated in her role as a cosmetic influential to be helpful rather than domineering on such social matters. However, her sphere of influence does not necessarily overflow into other areas of social behavior. Finally, the cosmetic consultant is

⁸⁶Elihu Katz, op. cit., p. 98.

not perceived by the sorority respondents as spending excessive amounts on her cosmetics in relation to her other sorority sisters.

Analysis Involving Self Designation of Opinion Leaders

The survey data containing the responses for the questions in Part Two (A), (B), (C), (D) were sorted by classification: opinion leaders (three or more votes); questionables (one or two votes); and influencees (no votes). Analysis of variance was then rendered to these data to determine on which questions the means of these classifications responses showed a difference. On eight questions a significant difference was noted at either the 5 per cent or 1 per cent level. However, there was no significant difference in the way a given sorority responded to the questionnaire in comparison with the other sororities.

The following questions showed significant differences in the means for the three classifications when tested. The complete list of analysis of variance tables for all questions in Part Two may be found in Appendix C. One should be reminded that in these eight questions, the opinion leaders' ratings consistently ranked higher than the scores of the influencees (influencees and questionables). Also, for this study the following commonly accepted symbols will be used to indicate that the difference between mean scores are significant at: $a = (P < .05)$

$b = (P < .01).$

Question 20. THE WAY IN WHICH AN INDIVIDUAL USES COSMETICS
INDICATES HER SOCIAL REFINEMENT.

Table 1

Analysis of Variance

Source	df	MS	F
Sorority	5	1.3817	1.1963
Class	2	3.7561	2.2520 ^a
Error	210	1.1550	

^aDifference between means significant at $P < .05$.

Question 31. CONCERNING COSMETICS, YOU GENERALLY ENJOY GIVING
YOUR ADVICE AND VIEWPOINTS WHEN THEY ARE ASKED FOR.

Table 2

Analysis of Variance

Source	df	MS	F
Sorority	5	0.7877	1.2638
Class	2	3.0586	4.9070 ^a
Error	210	0.6233	

^aDifference between means significant at $P < .05$.

Question 34. AS A RULE, YOU LIKE TO MEET NEW PEOPLE, GO TO SOCIAL
GATHERINGS, AND GENERALLY GET AROUND ALOT.

Table 3

Analysis of Variance

Source	df	MS	F
Sorority	5	0.5548	0.8651
Class	2	3.7525	5.8514 ^b
Error	210	0.6413	

^bDifference between means significant at $P < .01$.

Question 35. WHEN YOU READ OR HEAR SOMETHING INTERESTING ABOUT COSMETICS, IT IS IMPORTANT TO TALK IT OVER WITH SOMEBODY BEFORE YOU MAKE UP YOUR OWN MIND.

Table 4

Analysis of Variance

Source	df	MS	F
Sorority	5	0.6251	0.6939
Class	2	3.2009	3.5531 ^a
Error	210	0.9008	

^a Difference between means significant at $P < .05$.

Question 36. HOW MANY TIMES RECENTLY (LAST SIX MONTHS) HAVE YOU BEEN ASKED YOUR ADVICE ON COSMETICS? (Note that questions 37, 38, and 39 are subparts of this question and also seek supporting information on the frequency of cosmetic experience.)

Table 5

Analysis of Variance

Source	df	MS	F
Sorority	5	0.7208	1.1861
Class	2	20.4609	33.6737 ^b
Error	210	0.6076	

^b Difference between means significant at $P < .01$.

Question 37. WHAT COSMETIC BRANDS AND PRODUCTS ARE GOOD?

Table 6

Analysis of Variance

Source	df	MS	F
Sorority	5	1.5448	2.4084
Class	2	8.8064	13.7292 ^b
Error	210	0.6414	

^b Difference between means significant at $P < .01$.

Question 38. HOW TO APPLY VARIOUS COSMETICS?

Table 7

Analysis of Variance

Source	df	MS	F
Sorority	5	0.9484	1.2400
Class	2	8.0045	10.4655 ^b
Error	210	0.7648	

^b Difference between means significant at $P < .01$.

Question 39. WHEN VARIOUS TYPES OF COSMETICS ARE MOST APPROPRIATE AND ON WHAT OCCASIONS?

Table 8

Analysis of Variance

Source	df	MS	F
Sorority	5	2.9676	3.4398
Class	2	8.5375	9.8960 ^b
Error	210	0.8627	

^b Difference between means significant at $P < .01$.

Once the significant variables were disclosed, it was necessary to determine just what information was to be used in the multiple discriminant function. Perhaps a major difficulty of arbitrarily selecting respondents receiving three or more votes as opinion leaders is how to treat those potential leaders (questionables) with one or two votes. There were 61 questionables in the primary survey. In view of the fact that a different time interval or larger sample could rearrange those designated as influentials, it seemed desirable to temporarily eliminate these questionables from contention and concentrate on discriminating between the opinion leaders (18) and influencees (139).

The consequences of this action were contemplated as innocuous for the final analysis would include within the boundary of opinion leaders a percentage of questionables who responded to the questionnaire items similarly to the opinion leaders. At the same time, a basis for maximum linear separation between the means of opinion leaders and influencees would be provided. Thus, two-way discriminant analysis, which is becoming more common in marketing,⁸⁷ deals with an arbitrary number of variables but only two populations (complete program found in Appendix B).⁸⁸ This multivariate statistical technique was used in this study to predict the respondents' index scores.

The analyses began with a simple correlation analysis between the variables which are found in Table 9. By using a t-test of the hypothesis $H_0 : \rho = 0$ all the information concerning the degree of linear dependence between the variables can be summarized.⁸⁹

Next, an analysis of these variables was prepared in calculating the raw discriminant function which would discriminate between two groups by assigning high point scores (I values) to the influencees and low point scores to the opinion leaders. A summary of the mean values, discriminant weights and importance values are found in

⁸⁷ Ronald E. Frank, et. al., Quantitative Techniques in Marketing Analysis (Homewood, Illinois: Richard D. Irwin, Inc., 1962), pp. 95-100.

⁸⁸ This program may be found in the following pamphlet: Dean J. Clyde, et. al., Multivariate Statistical Programs (Florida: University of Miami, 1966), p. 9.

⁸⁹ Bernard Ostle, Statistics in Research: Basic Concepts and Techniques for Research Workers (Iowa: The Iowa State University Press, 1954), p. 181.

Table 9

Simple Correlation Matrix Between Opinion Leadership Input Variables

Question	20	31	34	35	36	37	38
31	0.082						
34	0.149	0.112					
35	-0.012	-0.016	-0.130				
36	0.180 ^a	0.265 ^b	0.221 ^b	-0.144			
37	0.216 ^b	0.271 ^b	0.264 ^b	-0.183 ^a	0.529 ^b		
38	0.100	0.398 ^b	0.205 ^b	-0.211 ^b	0.537 ^b	0.623 ^b	
39	0.258 ^b	0.204 ^a	0.181 ^a	-0.115	0.582 ^b	0.564 ^b	0.685 ^b

^aSignificant at the .05 per cent level (t test)^bSignificant at the .01 per cent level (t test)

$$t\text{-test formula: } t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} = \frac{r}{s_r} .$$

Source: Primary

Table 10. It should be noted that two variables in this analysis made a negative contribution. Unlike regression analysis, where each significant variable can be expected to improve the total function, in discriminatory analysis it is possible that some variables will show a negative contribution. However, by eliminating these negative values, it is possible for "search bias"⁹⁰ to enter the analyses. Also, another discriminate function equation calculated on the basis of the previous equation could still produce a negative contributing component.

Therefore, the discriminant function for this study was derived from the original eight significant variables. The I values of this discriminant function represent the combination of weighted characteristics for each respondent. This raw discriminant function takes the following form: (Index of Opinion Leaders) $I = 4.203103 - 0.026129x_1 - 0.004696x_2 + 0.014914x_3 - 0.325620x_4 - .901502x_5 - 0.188413x_6 - 0.061103x_7 + 0.202744x_8$.

Of major importance here is setting a cut-off point D where \bar{I}_p is the average score of the opinion leader and \bar{I}_f is the average score of the influencee so that after the discriminant scores are ranked and merged, the cost effects of misclassifying influentials and influencees are minimized. The original cut-off point was derived by hypothetically using equal probabilities that a respondent would be either an influencee or an opinion leader. Also, the cost of

⁹⁰Ronald E. Frank, et. al., "Bias in Multiple Discriminant Analysis," Journal of Marketing Research, Vol. II (August, 1965), p. 253.

Table 10
Mean Values of Variables, Discriminant Weights and
Importance Values by Computer

Variables (Questions)	Mean Scores		Weight	Importance Values	Relative Importance
	Opinion Leaders	Influencees			
20	3.82	3.36	-.026	0.039	.71
31	4.12	3.56	-.005	0.008	.15
34	4.29	3.96	.015	-0.016	- .29
35	3.88	3.31	-.326	0.601	11.01
36	3.94	2.35	-.902	4.631	84.88
37	3.18	2.15	-.188	0.617	11.30
38	2.88	1.96	-.061	0.181	3.32
39	<u>2.94</u>	<u>2.02</u>	.203	<u>-0.605</u>	<u>-11.08</u>
Unweighted Total	29.05	22.67		Total 5.456	100%

Source: Primary.

misclassification was assumed to be the same for each possible type of misclassification ($c_1 = c_2$). This may be formulated as follows:

$$\text{Cut off} = 0.3107 * \text{Log} ((p_2 * c_2)/(p_1 * c_1))$$

p_1 = a priori probability that a subject is an influencee
 p_2 = a priori probability that a subject is an opinion leader
 c_1 = cost of misclassifying a subject who is actually an influencee
 c_2 = cost of misclassifying a subject who is actually an opinion leader.

However, the efficiency of this arbitrary cut-off point may be improved by using an a priori probability relating to the number of respondents falling into the two groups. These probabilities were determined by the proportion of individuals classified as either opinion leaders or influencees. That is, 88 per cent of the classified individuals were influencees and 12 per cent were opinion leaders. By using a p_1 of .88 and a p_2 of .12, a cut-off point was derived at 4.7633.

Thus, this discriminant function successfully discriminated between opinion leaders and influencees with the opinion leader mean scores consistently ranking higher on all selected questions than the influencees. However, by resubmitting all data through the discriminate function including the 61 questionables, a composite analysis of all the respondents can be achieved in the primary survey. The program for achieving this analysis which uses the same index coefficients derived in the original study may be found in Appendix B. Table 11 presents the results of the preliminary analysis which ranked all respondents chronologically from lowest to highest scores.

Table 11

Chronological Listing of Respondents in Primary Survey by the
Multiple Discriminant Function
(Top 14 Per Cent of Listing)

Card Identity (218 Total)	Influencees (200 Total)	Opinion Leaders (18 Total)	Votes
133		2.5832	11
052		3.0054	9
116		3.2184	15
008	3.2233*		1
175		3.2803	23
194		3.5384	8
195		3.6413	4
028		3.6414	4
159	3.6884*		2
084		3.7284	15
218	3.9954*		0
161		4.0334	4
158	4.0764*		1
018		4.0794	9
023	4.1214*		1
006	4.1394*		1
167	4.1854*		1
198		4.2094	3
004	4.2144*		2
086		4.2904	4
032	4.4314*		2
069	4.5414*		2
022	4.5524*		1
107		4.5736	3
197		4.5736	3
199	4.5906*		2
033	4.6085*		0
050	4.6165*		0
200	4.6265*		1
055	4.7205*		0
203	4.7375*		1
Cut-off Point			
076	4.7634		0
138	4.8395		0

Source: Primary

NOTE: A constant of five was added to index to eliminate minus figures.
* denotes each observation which was misclassified.

To eliminate the bias⁹¹ where the multiple discriminant function is applied to the same sample data used to estimate the function,⁹² a secondary survey (testing two sororities, Phi Mu and Delta Gamma, not included in primary survey) was administered to and evaluated by the discriminant function and cut-off point developed in the primary study. A summary of these results may be found in Table 12. It was encouraging to observe three-quarters of the misclassified influencees in the primary survey had received one or two votes. Also, one-third of the misclassified influencees in the secondary survey were questionables with one or two votes. It does seem to be a chance occurrence that none of the opinion leaders were misclassified in the secondary survey. However, the base of the analysis is broadened by the inclusion of the questionables and the chances of completely ignoring potential opinion leaders is reduced in a full-scale survey procedure. This analysis, therefore, seems to be both a valid and practical solution to the problem of identifying opinion leaders in the open market place. This conclusion is condensed in Table 13.

⁹¹Bias may be defined as "any force, tendency, or procedural error in the collection, analysis or interpretation of data which provides distortion."

⁹²In other words, the idea of testing an hypothesis upon data from which it was originally derived is generally considered statistically unsound. This can be seen in the fact that a competent statistician can produce highly significant results, given enough time and data to pick and choose, rejecting what does not produce good results and retaining that which does. See for example: Thomas S. Robertson and James N. Kennedy, "Prediction of Consumer Innovators: Application of Multiple Discriminant Analysis," Journal of Marketing Research, Vol. V, No. 1 (February 1968), p. 68.

Table 12

Chronological Listing of Respondents in Secondary Survey by
the Multiple Discriminant Function
(Top 23 Per Cent of Listing)

Card Identity (142 Total)	Influencees (134 Total)	Opinion Leaders (8 Total)	Votes
302	3.0683*		1
315		3.1113	3
295		3.1533	11
219	3.2503		2
309		3.3463	5
307	3.3963*		1
259		3.4783	44
341	3.6384*		0
356		3.7184	6
274	3.7224*		0
347	3.9074*		0
322		3.9173	3
303	4.0034*		0
342	4.0824*		1
351	4.1374*		1
312	4.2144*		0
345		4.2214	3
279	4.2934*		0
252	4.3204*		0
236	4.3454*		0
301	4.3524*		0
280	4.4644*		1
281	4.5444*		0
348	4.5684*		0
234	4.6054*		0
225	4.6054*		2
238	4.6224*		0
262		4.6964	4
248	4.7034*		0
		Cut-off Point	
235	4.8034		0
286	4.8514		0

Source: Primary

NOTE: A constant of five was added to index to eliminate minus figures.
*denotes each observation which was misclassified.

Table 13

Classification of Opinion Leaders and Influencees by
A Linear Discriminant Function in the
Primary and Secondary Surveys

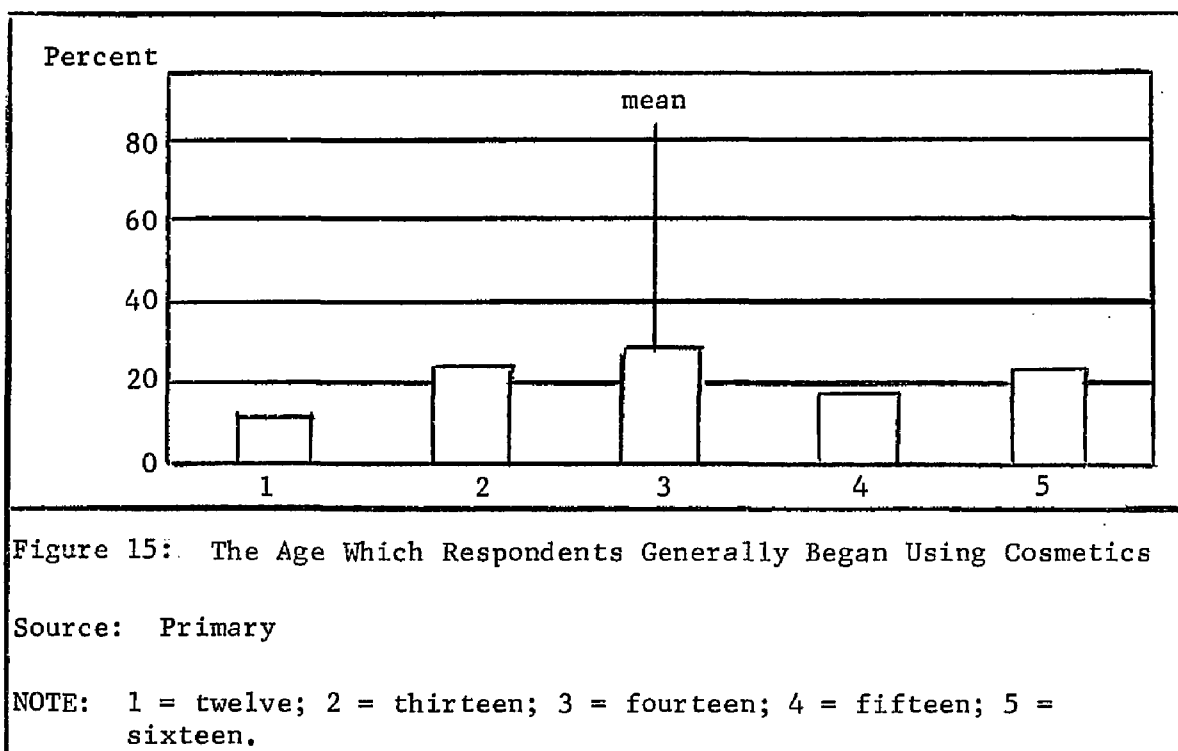
	Classified Correctly	Misclassified	Total
Opinion Leaders	22	4	26
Influencees	<u>296</u>	<u>38</u>	<u>334</u>
Total	318 (88.3%)	42 (11.7%)	360 (100%)

Source: Primary

In section Two (C) no significant differences between classifications were found in these questions. However, general information on sorority members' cosmetic behavior patterns was gained. For instance, in Figure 15, the ages at which sorority members showed interest in cosmetics was fairly evenly dispersed between 12 to 16 years of age with a mean average of about 14.

Concerning Figure 16 (data drawn from question 41), it is interesting to note several studies have presented findings indicating that ideas flow from mass media to opinion leaders who in turn pass it on to influencees.⁹³ Though the Decatur Study reported that opinion leaders, perhaps more exposed to the media than non-leaders, nevertheless reported personal influence as the major factor in their decisions. This suggests that in some spheres considerably longer chains of person-to-person influence than the dyad may have to be traced back before one

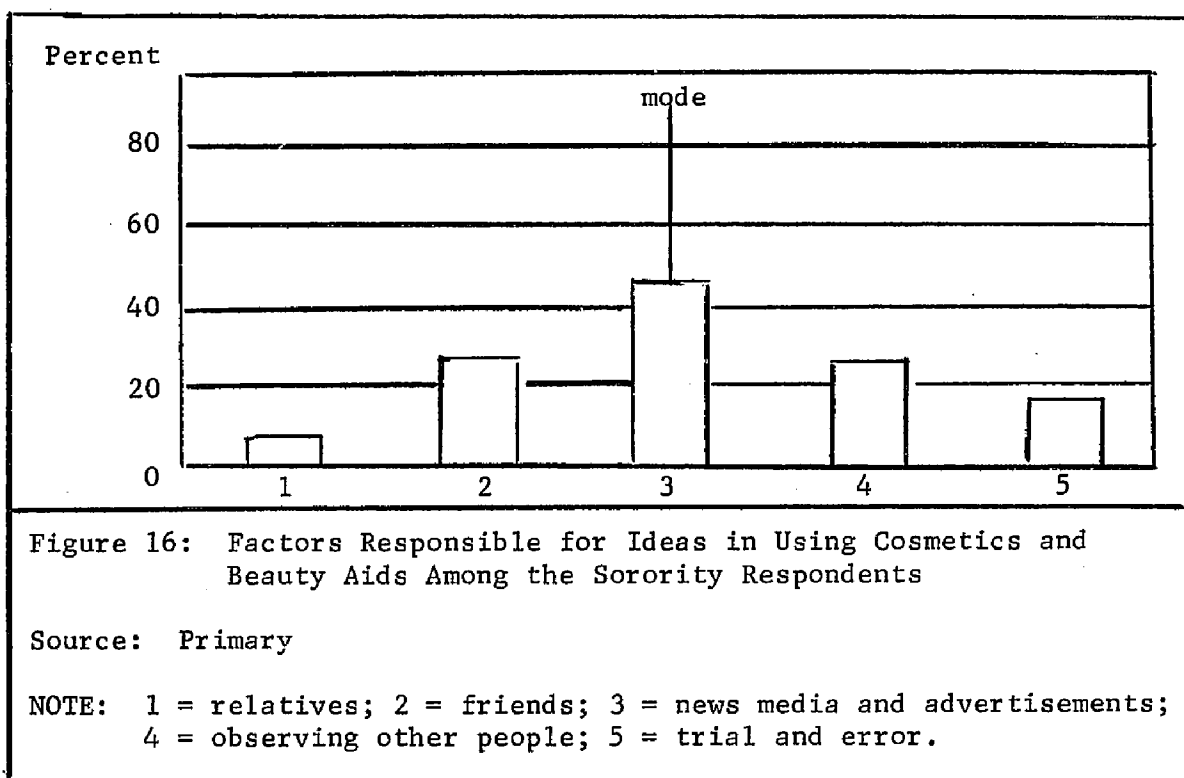
⁹³See: Elihu Katz and Paul F. Lazarsfeld, op. cit., p. 313, and Paul F. Lazarsfeld, et. al., op. cit., p. 151.



encounters any decisive influence by the mass media even though their contributory influence may be perceived at many points.⁹⁴ Figure 16 indicates, as a result of the discrete nature of this information, the mode tends to favor mass media as a dominant source of ideas for beauty aids.

Finally, the typical co-ed perceived herself as spending moderate amounts (below average) on her cosmetics and beauty aids. This seems peculiar; perhaps the typical co-ed is implying that she doesn't have to spend as much on cosmetics as the average collegiate. Conversely, this low mean score (2.83) may underlie a guilt complex that the average co-ed has concerning the need to purchase excessive amounts of cosmetics.

⁹⁴Elihu Katz, op. cit., p. 97.



In Part Two (D) it was attempted to determine if one's sphere of influence might not be a factor in opinion leadership. That is, could opinion leaders be expected to have more social contacts than influencees. Would there be a correlation between the number of votes individuals received and their sphere of influence. Finally, would high rated opinion leaders demonstrate greater leadership experience than lower rated opinion leaders. In other words, could a visual correlation be drawn between offices held and votes received.

Interestingly enough, the analysis of variance again did not show a difference in means between classes. Perhaps personal vanity may have been the dominant error factor in this section. It seems logical to expect that opinion leaders would have a larger sphere of influence, particularly concerning association with organizations and offices held, than influencees in general.

For instance, the Elmira Study indicated that opinion leaders belonged to more organizations and more often knew workers for political parties than did others. The Drug Study found that influential doctors could be characterized in terms of such things as their more frequent attendance at out-of-town meetings and the diversity of places with which they maintained contact.⁹⁵ Lazarsfeld suggested opinion leadership of any sort is directly related to social integration or gregariousness. Marketing leaders in specific communities could be pinpointed through the membership roles of organized groups such as clubs, civic associations or the PTA.⁹⁶

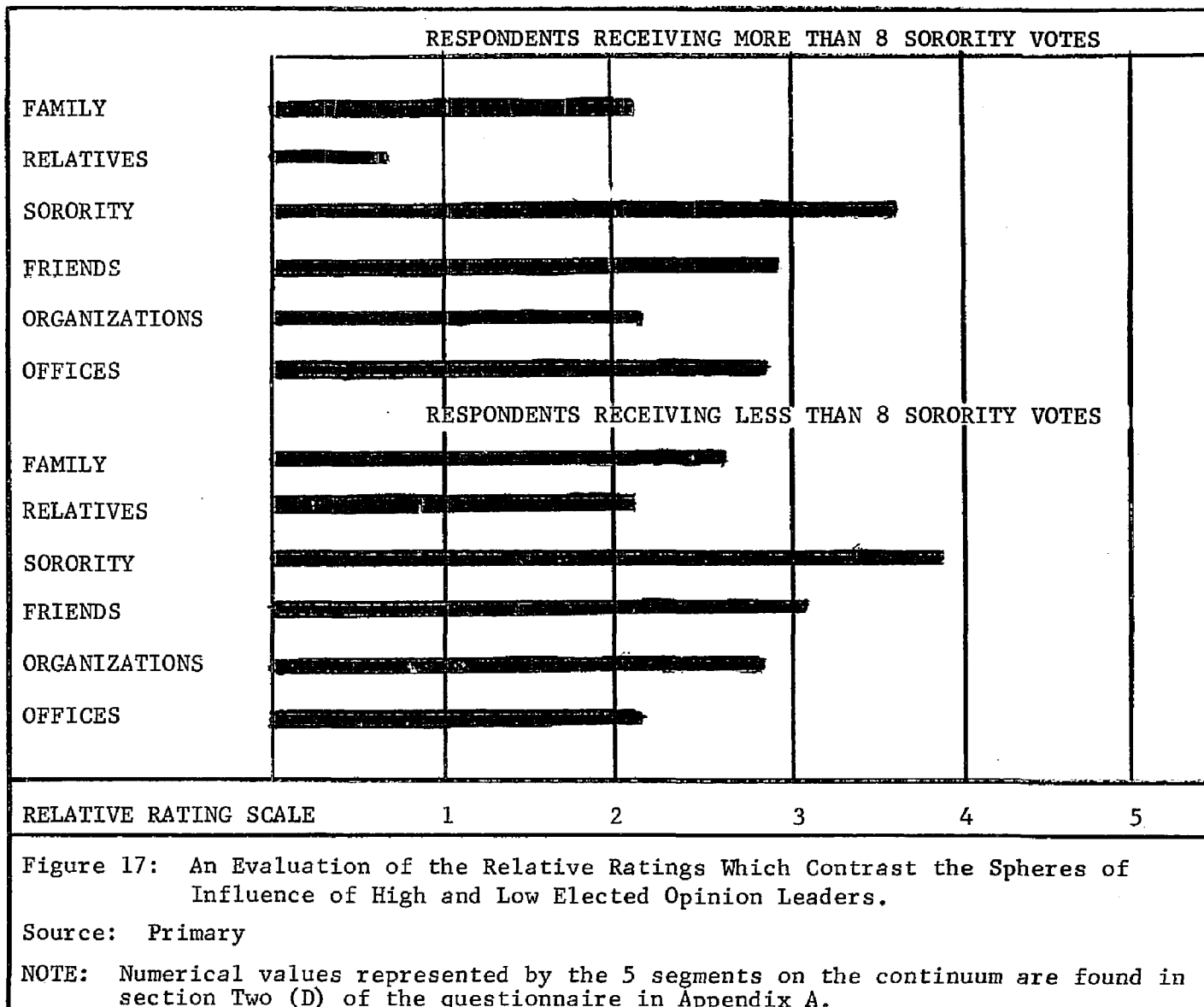
As can be seen in analyzing Figure 17, the significant difference between high and low voted opinion leaders was the number of offices each held. Note, however, that the lower ranked opinion leaders seemed to have belonged to more organizations. Thus, Lazarsfeld's suggestion that organizations and officers may be a potential source of marketing opinion leaders may be a valid suggestion at least as a starting point.

Perhaps in reference to a respondent's sphere of influence, one might be reminded that the importance of whom one knows is not simply a matter of the number of people with whom an opinion leader is in contact. It is also a question of whether the people with whom she is in touch happen to be interested in the areas in which her leadership is likely to be sought.⁹⁷

⁹⁵ Ibid., p. 96.

⁹⁶ Paul F. Lazarsfeld, "Who Are the Marketing Leaders?" Dimensions of Consumer Behavior, Edited by James U. McNeal (New York: Appleton-Century-Crofts, 1965), p. 108.

⁹⁷ Elihu Katz, op. cit., p. 95.



In sum, it appears that a single questionnaire survey can be designed and evaluated to successfully segregate opinion leaders from influencees. The advantages of this technique are that random sampling of a total universe can be achieved after pretesting the typical respondents whose characteristics are desired in the survey program. This will allow as broad or specialized coverage of a given universe as the researcher desires. The number of possible opinion leaders can be reduced to a reasonable fraction (perhaps the top 25 per cent of the listing) of the total number surveyed or with some loss error but high concentration of opinion leaders to a smaller percentage of the survey.

Since there is some criticism of the techniques which classify respondents as either opinion leaders or influencees with no evaluation of the middle ground, it should be noted that the immediate technique classifies respondents as like influentials or like influencees. Therefore, the scope of this research is broadened to cover some portion of this middle ground.

The author knows of no precedent to this particular research design so one can only conjecture as to why some of the variables worked as they did. However, it can be stated that the results suggest that this procedure in its initial testing phase seems to be a practical and valid answer for market researchers who have been searching for efficient methods to identify marketing opinion leaders.

The variables that were operative in this analysis suggest that cosmetic opinion leaders are gregarious persons who enjoy mixing socially, giving their advice and are independent thinkers on this topic. These individuals find a significant social advantage to

cosmetics and have had recent experience in giving advice on these beauty aids. Thus, with the preliminary results encouraging, perhaps only time will tell as to the potential impact of this procedure in identifying opinion leaders as well as improving market researchers' efficiency in motivating consumers.

A Compendium of the Central Findings Developed in
the Opinion Leadership Research

In view of this research on opinion leadership, it may prove more useful to conceptualize society as an agglomeration of groups (molecular structure) instead of a simple mass of singular individuals (atomic structures). This can be seen in the fact that people do not exist in isolation but rather as members (aspired or real) of numerous reference groups with which they seek to identify in pursuing their goal of self enhancement. The price these individuals pay for membership in these social groups is conformity to the standards of behavior dictated by the association. Of course, the limitations or restrictions to behavior in some groups may be more severe than in other groups.

Generally, those individuals who have gained the most status in these groups feel freest to deviate or innovate new patterns of behavior. However, those individuals who feel relatively insecure as group members, seek further security by manifesting stronger conformity patterns even though they may harbor personal feelings of dissent.

Frequently, it is the high mobiles in society, those individuals that show strong status aspirations, who are the first to adopt new products. Perhaps this is due to the fact that high mobiles must

contribute relatively more to the goals of society to achieve this status and the relevant social security. Since they have achieved relatively secure stations in society, they may feel freer to innovate without fear of being ostracized by the reference group.

Thus, in the Drug Study it was observed that the flow of influence began with these innovators, though they were not necessarily considered the influentials. The opinion leaders were found to occupy a central communication role and possessed a charismatic influence over relatively larger numbers of individuals. Perhaps this was a result of the influential's personal qualities of gregariousness, competence in the chosen area, and large sphere of social integration. Remember that these opinion leaders are generally thought to exist in equal numbers in all strata of society. Perhaps the distinguishing factor of opinion leaders concerns their independence of thought. That is, this individual through his knowledge and experience is able to synthesize numerous sources of information (people, mass media, observation) in arriving at a valid decision. Though most people have the ability to recognize congruent opinions matching their own, not all people have the time, experience, or ability to develop accurate decisions and/or opinions on all subjects. This is the predominant reason why opinion leadership is considered a situational phenomenon.

Once the influential adopts an idea, the impression is passed on to the large number of influencees within the opinion leader's sphere of influence. Finally, those individuals (isolates) that remain on the fringes of social integration adopt the object or action to complete the process of social influence.

In view of the significant influence opinion leaders manifest on the whole of society, the immediate study set out to improve on the available methods for identifying these influentials. A questionnaire design was developed to test the hypothesis of using a single questionnaire to efficiently discriminate between opinion leaders and influencees among sorority members on the topic of cosmetics.

In the first part of the questionnaire, general information was sought on the profile of the typical cosmetic opinion leader. Analysis of this section generally bore out the validity of past opinion leader research that competence, gregariousness and social class are universal characteristics of influentials.

The second part of the questionnaire sought to develop the technique of differentiating between opinion leaders and influencees. The critical sections in achieving this end were the attitude section and the experience section. It was proposed that opinion leaders may perceive certain phases of cosmetic and social behavior as more rewarding in goal attainment relative to influencees and this would be reflected in their stronger attitudes toward this factor. Also, the experience section would show whether, in fact, they have given advice recently on cosmetics. Since personal vanity may account for a large margin of error in such questionnaire studies, it was thought that the two sections would serve as a good check and balance to each other in evaluating expected behavior.

The evaluation of these sections involved an analysis of variance test to select those questions (variables) which showed a significant difference between the way opinion leaders answered them in contrast

to influencees. These variables were then calculated into a raw discriminant coefficient function to ultimately rank the respondents as like opinion leader types or like influencee types. A secondary survey, independent of the first analysis was conducted and the same pertinent variables were calculated into the multiple discriminant function to develop an index score for each respondent. The results gave preliminary evidence that this procedure would prove both practical and efficient for marketing researchers to use in discriminating between opinion leaders and influencees in large universes.

The latter section of the questionnaire sought to determine just how much influence an opinion leader might be expected to manifest in the market place. Evidence concerning the potential magnitude of an opinion leader's influence was sought by attempting to evaluate the number of people and organizations with which a respondent had frequent contact. This area did not show a significant bearing on the potential influence of opinion leaders in relation to the sorority member votes they received. Perhaps this is due in part to the fact that the number of acquaintances one has is not as significant as the number of acquaintances interested in the subject with which the opinion leader is considered influential. This thought might be more clearly seen in the premise that generally opinion leaders tend to manifest influence in singular areas of endeavor.⁹⁸ Thus, there are numerous opportunities to locate opinion leaders in the day-to-day routine of an individual's social intercourse.

⁹⁸Alvin J. Silk, op. cit., p. 259.

It appears, however, that one problem with which marketing researchers will have to cope with after successfully pretesting a specific opinion leader product survey design is the task of obtaining the names and addresses of the respondents in the major campaign.

Perhaps these names and addresses can be obtained from past sales of the firm's products. This procedure would be particularly relevant to big ticket items such as cars, color TV's, etc. Also, sponsoring consumer contests which call for mailing in names and addresses of entrants is another feasible method for obtaining a list of potential respondents. Free gifts or premiums can be offered to those sending in coupons from printed media (opinion leaders seem to have greater exposure to mass media). Warranty cards might be used, when available. Also, a brief mail survey of selectively segmented people (by area, age, income, neighborhood) might be conducted on one pretext or another, and space could be provided on the return postcard or letter for the name and address of the respondent. While the number of returns might be low, respondents frequently will include a high proportion of opinion leaders.⁹⁹

Thus, with the results of this preliminary opinion leadership study appearing very optimistic, only time will provide the complete answer as to the contribution of this survey design in significantly increasing the flow of intelligence on opinion leadership and indirectly elevating the efficiency of the marketing system.

⁹⁹James H. Myers and William H. Reynolds, op. cit., p. 307.

CHAPTER V

THE SUMMARY AND CONCLUSIONS TO THE CONSUMER MOTIVATION STUDY

The development of this systems approach to consumer motivation has three basic purposes: (1) to construct a theoretical frame of reference which will provide for a unified interdisciplinary approach to this topic; (2) to develop model analogies between physical and social systems to facilitate the comprehension of the underlying principles of consumer motivation; and (3) to advance primary research on procedures for efficiently identifying opinion leaders which is thought to take top priority in the search for more effective methods in delivering higher standards of living to society.

Systems Theory: The Method for a Synthesis Approach

The methodology of a systems approach has been utilized in this treatise because it has demonstrated the unique quality of an all-inclusive approach to most fields of inquiry. Perhaps this is primarily true because its basic premise provides the central clue to the organization of the whole of creation, i.e., all known phenomena can be organized into a hierarchy of systems to encompass the entire universe. Recall that a system is a natural classification scheme where a set of components is related to the accomplishment of some

purpose. Thus, systems represent the natural order in the scheme of things.

Such a concept may be based on the premise that all known phenomena have evolved from particles and a central core of natural laws. Thus, the complexity of contemporary systems is evidence of an evolutionary process of building on the foundations of past systems. This pyramidal process emerges from matters' central penchant to achieve and maintain a position in the environment. Perhaps the most successful organization of matter in perpetuating this end is termed an "open system." The reason for this is that open systems demonstrate the capacity to alter their mass and energy. In other words, with the ability to import energy from the environment, open systems can significantly slow the entropy process which ultimately leads to disorder and destruction of the system. It should be recalled that organic and social systems are classified as open systems primarily because of their "negentropic" properties.

Systems theory, therefore, provides the perspective of this research study and is concerned with developing a systematic, theoretical framework for describing the general concepts underlying consumer motivation. A broad spectrum of potential achievements for such an interdisciplinary framework does exist because similarities in the theoretical construction of various disciplines can be pointed out through the medium of analogy. Models can be developed to contrast the operational similarities of seemingly diverse productive physical systems with productive social systems. By observing the operating principles of physical systems as analogized with social systems, a

greater understanding of the essential elements for operational efficiency in social systems can be gained. In addition, by tying the concepts relevant to social systems to the well-founded principles of physical systems, it is posited that greater clarity of the underlying principles of productive social systems can be achieved.

Therefore, systems theory provides an important method for developing and understanding the functional similarities which underlie the operation of all productive systems. The medium of analogy is a unique approach with an ability to hypothetically strip away the molecular structures of productive physical (electrical) systems and social (consumer) systems to expose the similarity of the underlying laws of physics basic to their operation. Thus, by abstracting these seemingly diverse productive systems back to their fundamental operation, the transformation of energy, some parallels in function may be observed by this essentially inductive method of reasoning. The usefulness of analogizing the process of energy transformation in these two seemingly disparate systems can be seen by tracing the essential factors leading to efficient energy expenditure in physical systems and applying similar strategies to energy transformation in social systems. Such an approach will provide the marketer with a concrete frame of reference from which to draw plausible remedies in solving the innumerable problems of efficient consumer motivation.

An example of how the most basic operation in both physical and social productive systems can be derived may be found in the following steps:

1. All productive systems (physical and social) are input-output systems.

2. The lowest common denominators in these systems are energy and mass.
3. The universal environment for the activation of energy (motivation) is found in Le Chatelier's principle which states:

If a stress, any change in one of the variables that determines the state of a system in equilibrium, the equilibrium is shifted in a way that tends to undo the effect of the stress.

4. Motivation is epitomized as the transformation of energy.

Thus, by utilizing an analogy between a social (consumer) system and a physical (electrical) system, strategies can be drawn from the well-founded principles of physics and applied to the transformation of energy (motivation) in a consumer system to improve on the efficiency of its operation. In addition, energy can be used as a trace element to be followed through the hierarchy of consumer systems (individual, family, neighborhood, regional and national markets) to provide a closed-loop systematic investigation of consumer motivation. In pursuing such an investigative itinerary, considerable emphasis is placed on those areas necessitating top priority on primary research endeavors in providing a free flow of intelligence on consumer motivation.

In sum, the systems concept provides a framework for visualizing internal and external environmental factors as an integrated whole. It allows recognition of the proper place and function of subsystems. That is, by studying the nature of energy in consumer systems, its flow may be seen as being directly affected by the intra-personal factors of psychological systems. The direction the consumer's energy (capital and labor) takes in the market system (products purchased) can

be seen as being predominantly influenced by the extra-personal factors of sociological systems. Thus, the systems concept allows recognition of the proper place and function of subsystems. Systems concepts foster a way of thinking which on the one hand helps to dissolve some of the complexity of consumer motivation and on the other hand helps the marketer recognize primary research problems with top priority in providing for an unobstructed flow of intelligence on consumer motivation.

It, therefore, seems logical that the next topic of discussion should commence with the psychological factors pertinent to motivation in consumer systems.

The Psychological Factors Pertinent to Consumer Motivation

Since time immemorial, mankind has generally despaired of developing a general theory of human behavior. The ramifications of man's pursuit of life seems so infinitely complex that few behavioral scientists can agree unanimously on any one given approach. However, if it can be shown that one set of forces dominates the behavior of most individuals, the behavioral scientist can center his attention on the operation of those forces and predict aggregate behavior through deductive reasoning. Some of the variables in this hypothetical model may be expected to produce certain unexplained residuals but if they are sufficiently small, the researcher may put them aside intermittently.

With the benefit of systems concepts to bridge the theoretical gap between physical and social sciences, the researcher can trace this set of forces which dominate human behavior. That is, at the core of

systems theory is the central motivation of matter to achieve and maintain a position in its environment. This instinctive drive to maintain a given place in the scheme of things has led to the progressive complexity of contemporary open systems. Thus, with a generalized systems perspective, man can also be seen to conform to this basic principle of nature, i.e., the drive to achieve and maintain an ecological niche in his environment. This basic motive is generally subdivided into primary needs (food, water and shelter) and secondary needs (love, achievement and self esteem). This dichotomous need hierarchy emphasizes the essential difference between inorganic matter, which is concerned with only a physical environment, and Homo sapiens, who must contend with both the physical environment (survival needs) and the social environment (security needs). To achieve and maintain a balance or homeostasis in his environment, man must continuously transform energy (essence of motivation) in the performance of adaptation activities.

The central concept which generally encompasses the Homo sapien's struggle to achieve and maintain an ecological niche in his environment is titled, "the goal of self enhancement" and includes both the survival and security needs of man.

At birth the human entity instinctively is aware of his primary (survival) needs in his physical environment. However, he must learn the needs which will provide him with security in the social environment. It is generally contemplated that these secondary (security) social needs are insatiable because they are relative to the possessions and aspirations of the other members of society. In a culture with a

central goal of creating higher standards of living, society may be seen to be constantly building on the foundations of the past. Thus, the secondary social needs truly represent the greatest potential for consumer motivation once the primary needs have been fulfilled.

The human being's mental view of the world is termed perception and is focused on the task of guiding the individual through his environment toward the goal of self enhancement. As the human entity perceives environmental stimuli (action), the individual associates a response (reaction) with it that represents an interpretation of how this individual perceives the stimuli are related to his goal of self enhancement. This relationship manifests attitudes which are defined as learned predispositions to respond to a given set of stimuli and reflect the degree to which the individual perceives the object contributes to his goal of self enhancement. The entirety of the process of associating responses with stimuli and the formulation of attitudes provide the human entity with a basis for deriving meaning from the environment.

But because the environment is constantly in flux combined with the varying ability of Homo sapiens to accurately decipher the stimuli set, the associated responses and ensuing attitudes are constantly being re-evaluated for their fidelity in the pursuance of the goal of self enhancement. Thus, as the variance of error in the response-attitude cycle is eliminated to project a truer course toward self enhancement, these attitudes progressively develop into the stabilized condition of beliefs. Finally, the organized pattern of attitude-beliefs concerning a given subject may be thought of as a concept, which

is the ultimate in man's perceptual adjustment to his environment.

As the individual uses the concept as a frame of reference for behavioral patterns, those responses which tend to lead to rewarding experiences are reinforced as patterned activities and are thought of as learned responses. However, those responses which tend not to lead to rewarding experiences are eliminated as potential patterns of behavior. Thus, as a response is consistently rewarded, it becomes a habit or a pre-set pattern of behavior. The marketer is well aware of the value of habitual behavior as evidenced in brand, product, store and company loyalties.

The intimate nature of self refers to a set of attitudes which an individual holds towards his own person as an object. This viewpoint posits that the self is the most important of all objects.¹ Thus, these self-defining attitudes reflect whether the real self is perceived by the individual to contribute or detract from his goal of self enhancement. If the individual is dissatisfied with his perceived position in society, he may set an aspired position (aspired self) he wishes to achieve relative to the other members in his domain. His attitudes will, therefore, reflect the aspiration of this desired social position in his perception of how the objects in his environment contribute to his goal of self enhancement. However, if the individual is satisfied with his social position relative to other social members, then the real self will become the dominant base for

¹C. A. Hickman and Manford Kuhn, Individuals, Groups, and Economic Behavior (New York: The Dryden Press, 1956), p. 89.

his attitude formation toward the objects of his environment. In either case, the self concept is the central organization of attitudes toward the self (real or aspired) as an object.

Marketers are cognizant that individuals purchase those products which complement the self (real or aspired) concept. This phenomenon has evolved from man's constant need to be recognized and assured of his identity (position in the environment). Since language's primary purpose is to influence behavior, it has frequently been known to obscure meaning. Consequently, individuals must demonstrate tangible evidence of their identity. Therefore, products may be seen to represent symbols of primary and secondary needs.

The socialization process instills group values in the individual. This adaptation procedure is generally the function of primary groups, such as the family and peer groups. The association is generally closely knit, structured, face to face, and requires the member to conform to the norms and mores of the group. This pressure of conformity behavior is rooted in the member's basic needs for acceptance and approval in his social environment.

American society may be seen to form a social continuum with low mobiles anchoring one end and high mobiles representing the other. Pierre Martineau suggests in his social class research that the low mobiles are preoccupied with insuring the satisfaction of the basic needs while the high mobiles continue to be motivated in satisfying the higher level social needs. These diverse aspirations are frequently defined by a given individual's spending patterns.

Therefore, since the ramifications of social class designation seem far more complex than a mere survey of the level of income and neighborhood concerning the large middle range of people, attitude research has been suggested as one plausible strategy in segmenting markets. This strategy is based on the idea that individuals sharing the same type of attitudes toward certain social aspirations tend to own and consume more or less the same kinds of goods and services.

However, attitudes are only one factor in the prediction of purchasing behavior. Kurt Lewin, a psychology professor, provides the other elements in predictive purchasing behavior as well as to support their relevance with empirical evidence. Essentially, he claims a prospective consumer's purchasing behavior is determined by the desire to obtain a product with countervailing pressures represented by the cost of the product. In other words, if the consumer perceives the energy cost (money) is greater than the desire to possess the product, then the purchase will not be consummated. Conversely, if the desire to purchase the product surpasses the cost resistance, then the product can be expected to be acquired by the consumer.

After acquiring the product, if the consumer perceives the product does not complement his self concept (contribute to the goal of self enhancement), a state of cognitive dissonance is prevalent. The consumer, therefore, initiates one of two courses of action to reduce the tension from this state of dissatisfaction. One course of action is to return the product and obtain a refund or another product more suited to the individual's self concept. The other recourse involves ignoring all the negative information concerning the product

that is incongruent with his self concept while seeking out positive information which complements and supports the product's congruency with the self image.

It must be shown that the ability of a consumer to obtain these symbols of class mobility are usually directly related to the individual's capacity to compete in the economic contest. This struggle for class position seems to be a carryover from the dominance orders found among all social vertebrates which can be traced back to pre-historic times. In other words, those primates capable of mobilizing the most productive energy toward survival goals gained a decisive advantage over less fortunate primates in perpetuating life. Darwin coined this process, "survival of the fittest," and it still seems uniquely applicable to so-called civilized societies today.

Beyond those psychological factors which may be thought of as catalysts to the flow of consumer energy, there are external sociological forces which influence the direction that consumer energy will take in the market place.

The Sociological Factors Essential to Consumer Motivation

The sociological forces inherent in culture generally influence the directional flow of consumer energies in a broad but definite pattern. Certain standards of dress, education, housing, sanitation, and productivity are required of American consumers if they are to be fully accepted into western culture. This situation emphasizes that there are broad social forces which serve to direct the flow of consumer energy (capital and labor) in the market system.

As one descends the social hierarchy of reference groups (culture, social classes, minority groups, neighborhoods, family, etc.), the intensity of social influence may be expected to become greater in direct relation to personal contact. Thus, the individual has certain key reference groups from which he takes most of his behavior cues; he conforms because he wishes to be accepted by the members of those reference groups. The price of admittance to these groups is conformity to their standards.

The central idea for marketers to keep in mind is that research has shown that an individual behaves in accordance with the values and norms of his dominant reference group. Therefore, as the consumer's energy flows into the market place, its direction (purchase selection) may be directly influenced by the reference group's norms concerning such product areas as furniture, cars, homes, clothing, etc. In essence, most consumers may be thought of as conforming to the purchasing patterns condoned by their reference groups.

Previously, it was observed that the high-mobile members of society are usually the first individuals to try a new product. There may be a number of reasons for this; for example, high mobiles by virtue of their status aspirations gain some prestige by being innovators. Also, their relatively high levels of social security resulting from their significant contributions to social goals affords them the opportunity to deviate from the norm with little apprehension of being ostracized for their original behavior. Finally, because they are status conscious, they may generally be more informed on the merits and inherent satisfactions associated with new products. However,

these early adopters should not necessarily be thought of as opinion leaders.

Thus, some discussion of the origin and process of social influence may be appropriate at this point. An early theory was titled the "trickle down effect" where it was thought the elite classes of society accepted a product, and it was adopted throughout society as a result of emulation by the lower classes. However, it was observed in Lazarsfeld's pioneering work, Personal Influence, that social influence involved a two-step process. That is, mass media presented the initial information concerning a product or service which left an impression on the marketing opinion leaders. The influentials in turn disseminated these impressions to the less active sectors of society.

The opinion leader is generally thought of as a gregarious, confidence inspiring authority concerning the subject of interest, who occupies a central role in a social communication network. These opinion leaders are found in almost equal numbers in all strata of society. Thus, the flow of social influence tends to be horizontal rather than vertical as previously thought.

Perhaps the Drug Study best epitomizes the process of the diffusion of social influence. For instance, this study found that the doctors' willingness to try the drug (gammanyn) was directly related to their degree of social integration or gregariousness. The acceptance pattern of the drug spread through four different groups of doctors: first, the professionally orientated, "innovators," accepted the product but their action did not immediately result in a rush to

follow suit; the drug was next adopted by the socially integrated, "influentials;" and their action was followed shortly by the largest group, the "influencees;" and finally, the remaining small groups on the fringes of social integration, "the isolates," adopted the drug to complete the cycle of social influence. This example of the diffusion of social influence suggests the two-step communication process is an over simplification which might be validly supplanted by a multi-step concept.

The essential value of opinion leaders can be seen in the fact that few individuals have the time or resources to synthesize all the information about a given product area. However, people do have the ability to recognize sound reasoning which is congruent with their own attitudes and values concerning a given product. Therefore, opinion leaders manifesting a proficiency concerning a given subject play a central role as a communication medium. This circumstance underlies the fact that opinion leadership is a situational phenomenon with little overlap in other areas of endeavor.

In view of the statistic that only 1.5 per cent of potential products are ever worth their patent fee, the statistical probability of successfully marketing a potential product becomes less than one in three hundred.² Such facts place a great deal of urgency on marketers to locate the opinion leaders whose dynamic influence could play a major role in improving the efficiency of the marketing system.

²Edmund D. McGarry, op. cit., p. 244.

Contemporary methods for locating opinion leaders include such techniques as: hand picking neighborhood opinion leaders through personal interviews, random selection of civic leaders, costly questionnaire procedures which use self-designating leadership questions, or two-step questionnaire surveys which sociometrically blanket entire universes to obtain reasonable results. To date, all these methods have demonstrated crippling disadvantages to economically orientated business firms.

Therefore, to continue the free flow of intelligence on the nature of opinion leaders and their effect on consumer motivation, primary research was initiated to develop a survey design which could be utilized by business and research firms to efficiently locate opinion leaders in the open market place.

A Survey Design to Isolate Opinion Leaders

It has been posited in this study that one area necessitating primary research to improve upon the effectiveness of the marketing system are procedures for efficiently identifying opinion leaders. Herewith, a strategy for identifying influentials in a given population will be reviewed.

Criterion Concerning the Survey Administration

In order to test the feasibility of improving on past opinion leadership survey procedures, the following hypothesis was proposed:

A single self-designating questionnaire survey can be designed and evaluated to differentiate between opinion leaders and influencees concerning a given product area.

The 48-item questionnaire utilized a 5-point constant interval, forced-choice scoring procedure. The attitude section (Part Two A) employing the Likert rating technique was used in conjunction with factual content questions (Part Two B) in an effort to differentiate between the questionnaire responses typical of cosmetic opinion leaders and responses common to influencees.

The study involved the active members of eight sororities. Six sororities were tested in the primary investigation and two more were tested to validate the results of the first survey. In the primary survey, 218 usable questionnaires were obtained out of a total of 248 active sorority members in the six organizations, giving a preliminary response return of 88 per cent. Once the primary data was processed, the two remaining sororities were surveyed. These sororities were represented by 155 active members from which 142 usable questionnaires were obtained providing a 91 per cent return.

The subjects responded to closed questions which were represented by a 1 to 5 constant interval rating scheme. In the attitude section, the respondents were requested to respond to one item on a 5-point continuum: strongly disagree, disagree, neutral, agree, strongly agree.

In the non-personal opinion leader profile section (Part One B), a simple system of the sum of the item scores (frequency test) was used. However, in the personalized sections (Part Two A, B, C, D), an analysis of variance was used to determine those questions which showed a difference between the mean scores of opinion leaders and influencees. Next, the significant variables were calculated into the multiple

discriminant function which subsequently derived an index score to segregate opinion leader types from influencee-type respondents.

A Spearman-Brown prediction formula was used to test the reliability of the attitude section (Part Two A). This test rendered an 81 per cent reliability coefficient based upon the responses of 218 sorority members. This percentage figure indicates the degree to which this survey's attitude scale yields consistent scores when the attitude is measured a number of times.

The survey questionnaire scale was shown to discriminate between opinion leaders and influencees with the opinion leader scores consistently ranking higher on all selected questions than the influencees and questionables. As a result the composite scores of the questionables and influencees could be summed together and evaluated against the opinion leader scores. The mean score for the opinion leaders for the pertinent questions was (3.60) versus (2.99) for the influencees (composite score for influencees and questionables). That is, opinion leaders showed stronger reactions to selective phases of cosmetic activity than did influencees at ($P < .01$) or ($P < .05$) levels of significance.

Methodology and Opinion Leadership Survey Results

Generally in Part One (B) of the questionnaire, it was sought to develop a typical profile of the cosmetic opinion leader as perceived by the members of the sororities tested. A frequency and percentage test was initiated to tabulate the respondent's answers with a mean score being calculated to depict the profile of the typical cosmetic opinion leader. The results of this analysis generally bear out the

validity of past opinion leader research that competence, gregariousness and social class are universal characteristics of influentials and relevant to cosmetic confidants.

Part Two (A), (B), (C), (D) was designed as a self contained unit for the express purpose of testing the hypothesis of this survey design mentioned earlier.

First, an attitude section was developed to test whether opinion leaders perceive some phases of cosmetic behavior as more rewarding in goal attainment than do influencees. This would be observed by the higher ratings of opinion leaders on certain questions than the ratings of influencees. Next, since the subjective nature of attitudes frequently exhibit some error content, perhaps resulting from the human frailty of vanity, an experience section (Part Two B) was included to serve as a check and balance to the attitude section in evaluating expected behavior. In other words, the attitude strength and cosmetic advice experience may serve as a useful criterion in discriminating between opinion leaders and influencees. Part Two (C) was a miscellaneous section designed to uncover additional discriminating information about the respondent's cosmetic behavior in general. The last section (Part Two D) was designed to determine the relationship, if any, between the opinion leader's and influencee's sphere of influence as well as uncover any unique information concerning the social leadership experience of opinion leaders which may indicate how influential these cosmetic consultants are expected to be.

In order to determine if the opinion leaders answered any of the questions differently than the influencees, analysis of variance was

used to test this significance. This analysis indicated that four attitude questions (Part Two A) and all the experience questions (Part Two B) showed a difference in the mean scores between opinion leaders and influencees at 1 per cent or 5 per cent levels of significance. This fact suggests that opinion leaders do perceive certain phases of cosmetic activity as more rewarding as evidenced by their stronger ratings, than do influencees. In addition, the experience of respondents as recent cosmetic advice givers is not only a good check of the valid nature of attitude scores but an invaluable indication of cosmetic leadership.

These eight variables (pertinent questions) for each respondent were next inserted into the multiple discriminant function to segregate opinion leaders from influencees. In other words, the question arises how best can the researcher weight these test responses so as to provide a maximum separation or differentiation between these two groups? The equation which yields composite scores under the conditions of optimum weighting constitutes a discriminant function. Such a function is essentially a regression equation from which once the researcher knows the subjects' scores on the test, he can estimate their optimum scores. When the researcher possesses scores in some independent criterion against which the respondents' tests may be correlated, the discriminant function becomes an ordinary multiple regression equation.³

³Henry Garrett, "The Discriminant Function and Its Use in Psychology," Psychometrika (June, 1943), p. 65.

The results of this analysis by the multiple discriminant function correctly classified 88.3 per cent or 318 of a total of 360 respondents combined in the primary and secondary surveys. It was encouraging to observe three-quarters of the misclassified influencees in the primary survey had received one or two votes. Also, one-third of the misclassified influencees in the secondary survey were questionables with one or two votes.

However, analysis of the remaining sections (Part Two C, D) generally proved inconclusive. There seemed to be some indication that opinion leaders of high popularity (over eight votes) held more offices in social organizations while opinion leaders with lesser popularity (less than eight votes) experienced membership in more organizations.

Concluding Comments

The systems approach to consumer motivation represents a major step toward the unification of an interdisciplinary perspective to this topic. Time may prove to be the best indicator of the merit of this approach in facilitating marketers in comprehending the complexities of consumer motivation as well as using this systems approach as a frame of reference for decision making.

The unique nature of drawing analogies between physical and social systems should help to circumvent the nebulous structure of social concepts as well as to illustrate more concretely their operation in the ecological environment. In view of the fact that some universities are contemplating the merits of integrating their

business and engineering curriculums, this approach might be seen as foresighted in that it should facilitate the elevation of social studies into higher scientific realms facilitating the academic synchronization of business and engineering curriculums when the time comes.

The primary research concerning the opinion leadership survey suggests that discriminatory analysis can be successfully used by marketers to segregate efficiently opinion-leader types from influencee types in the open market place. One observation which seems particularly important is that many previous procedures classify individuals as either influentials or influencees. Thus, the vast middle range of potential opinion leaders seems largely ignored. However, the discriminant function lists respondents as like opinion leaders or like influencees. Therefore, the base of the analysis is broadened and the chance of completely ignoring potential opinion leaders in a full-scale survey procedure is reduced. This analysis, therefore, seems to be both a valid and practical solution to the problem of identifying marketing opinion leaders in large universes.

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APPENDIX A

QUESTIONNAIRE INSTRUCTIONS

1. Please administer the questionnaire to all active members of the sorority.
2. Please read the following statement to the sorority members before they begin filling out the questionnaire:

This is a questionnaire concerning people you would turn to for advice on cosmetics. The questionnaire also includes several sections designed to collect some information about the respondents filling out the questionnaire.

This survey will be given to about 300 sorority members on the L.S.U. campus. The information is being collected for a dissertation, and it is hoped that successful outcome of this project will facilitate marketers in getting the right product to the right place at the right time.

Notice this is an opinion survey. There are no right or wrong answers. Just select the most appropriate answer and place its associated number in the box provided.

3. As the questionnaires come in, check the name off against the active membership list provided.
4. Please place the name of the active sorority members not in attendance on a blank questionnaire. Please leave these questionnaires with the sorority president (along with stamped return envelopes) and ask her if she would ask these individuals to mail me their completed questionnaires.

Columbia University in the City of New York | New York, N.Y. 10025

BUREAU OF APPLIED SOCIAL RESEARCH

605 West 115th Street

January 10, 1968

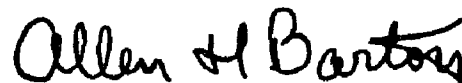
Mr. Bruce Gunn
P.O. Box 19586
Louisiana State University
Baton Rouge, Louisiana 70803

Dear Mr. Gunn:

The problem of how to identify opinion leaders by their own responses is a difficult one, and I wish you luck in working on it. The idea of a validation study is good. People living in the group setting of University sororities may be rather peculiar in their opinion leadership structure; they are also at a special stage of the life cycle (presumably mainly unmarried late-teens) so you have a problem of whether you can generalize to housewives. However, the idea that intensity of attitudes toward a topic is related to opinion leadership is a very general one; if it proves out in your sample on your topic, it would still need testing elsewhere, but it would be a good start.

I believe the questionnaires used in our original opinion leader study appear in the appendices to Katz and Lazarsfeld's Personal Influence. A small monograph by Arndt on "Word of Mouth Communication" has just come out which reports some subsequent research. You might communicate with him at the Business School here for advice.

Sincerely yours,



Allen H. Barton
Director

AHB:lj

QUESTIONNAIRE

Full Name _____ Sorority _____
(Printed)

This questionnaire survey is designed to collect information about you as well as the individual whom you have confidence in for her opinions on cosmetics. The success of this project should facilitate cosmetic firms in developing and distributing their products to the market place much more efficiently.

Part One (A)

Please print the full name of a currently active sorority sister whom you would turn to first for advice on your personal cosmetics.

Part One (B)

The following is a list of statements regarding why you have confidence in the chosen individual's opinions on cosmetics. It is desired you indicate your own personal opinions regarding these questions, regardless of whether you think other people might agree or disagree with you. There are no right or wrong answers to these statements. Your personal opinions are all that matter.

You will notice that a range of from one to five answers follow each question. You are to place the number of the most appropriate answer in the box provided.

1. THIS INDIVIDUAL YOU WOULD CONSULT ON YOUR COSMETICS IS GENERALLY CONSIDERED BY YOU TO BE A [].
(1) acquaintance; (2) associate; (3) roommate; (4) sorority officer;
(5) friend
2. THE POPULARITY OF THIS INDIVIDUAL YOU WOULD CONSULT ON COSMETICS WITHIN YOUR IMMEDIATE SORORITY IS GENERALLY [].
(1) low; (2) below average; (3) average; (4) above average; (5) high
3. YOU CONSIDER THIS PERSON'S APPEARANCE (NEATNESS, FIGURE, GROOMING) YOU WOULD CONSULT ON COSMETICS TO BE GENERALLY [].
(1) unattractive; (2) slightly attractive; (3) attractive;
(4) striking in appearance; (5) very attractive

4. THE PERSON YOU NAMED IS GENERALLY CONSIDERED BY YOU TO BE [] TO YOU ON SOCIAL MATTERS.
- (1) inferior; (2) slightly inferior; (3) equal; (4) slightly superior; (5) substantially superior
5. IN YOUR OPINION, MUST THIS INDIVIDUAL'S SCHOLASTIC INTELLIGENCE BE AN IMPORTANT FACTOR BEFORE YOU WOULD CONSULT HER ON COSMETICS? []
- (1) always; (2) frequently; (3) on the average; (4) occasionally; (5) has nothing to do with the issue
6. THE JUDGMENT (COMMON SENSE) THIS INDIVIDUAL DEMONSTRATES ON OTHER MATTERS NOT RELATED TO COSMETICS IS [].
- (1) bad; (2) poor; (3) average; (4) good; (5) excellent
7. IN COMPARISON TO YOUR SOCIAL CLASS, THIS COSMETIC CONSULTANT'S SOCIAL CLASS IS [] IN RELATION TO YOURS.
- (1) lower; (2) slightly lower; (3) equal; (4) slightly above; (5) significantly above
8. THE COSMETIC CONSULTANT YOU HAVE SELECTED [] SHARES THE SAME SOCIAL OPINIONS AND VALUES THAT YOU BELIEVE IMPORTANT.
- (1) never; (2) occasionally; (3) on the average; (4) frequently; (5) most of the time.
9. HOW ACTIVE IN SORORITY AFFAIRS IS THIS COSMETIC CONSULTANT? []
- (1) not at all; (2) slightly; (3) moderately; (4) very; (5) extremely
10. HOW FASHION CONSCIOUS WOULD YOU CONSIDER THIS COSMETIC CONFIDANT TO BE? []
- (1) not at all; (2) slightly; (3) moderately; (4) very; (5) extremely
11. IN RELATION TO OTHER SORORITY SISTERS, THIS COSMETIC CONFIDANT GENERALLY SEEMS TO SPEND [] AMOUNTS ON COSMETICS AND PERSONAL POSSESSIONS.
- (1) small; (2) below average; (3) average; (4) above average; (5) high
12. THIS INDIVIDUAL YOU WOULD CONSULT ON YOUR COSMETICS IS [] TO LOCATE FOR HER ADVICE AND COUNCIL.
- (1) difficult; (2) slightly difficult; (3) convenient; (4) very convenient; (5) always convenient

13. THIS INDIVIDUAL YOU WOULD CONSULT ON COSMETICS SEEMS TO HAVE A [] PERSONALITY.
(1) indifferent; (2) mild; (3) moderate; (4) forceful; (5) extremely dominant
14. THE SKILL AND EXPERIENCE THIS COSMETIC CONFIDANT DEMONSTRATES IN APPLYING HER OWN MAKE-UP IS [].
(1) bad; (2) poor; (3) average; (4) good; (5) excellent
15. WOULD YOU SAY THAT YOU ARE [] INFLUENCED BY THIS COSMETIC CONFIDANT'S VIEWPOINTS ON MOST SOCIAL MATTERS.
(1) never; (2) sometimes; (3) moderately; (4) strongly; (5) most of the time
16. THE WILLINGNESS OF THIS INDIVIDUAL TO GIVE ADVICE, SUGGESTIONS, AND CONSTRUCTIVE CRITICISM IS [].
(1) bad; (2) poor; (3) average; (4) good; (5) excellent
17. HOW SOCIAL CONSCIOUS DO YOU CONSIDER THIS COSMETIC CONSULTANT TO BE? []
(1) not at all; (2) slightly; (3) moderately; (4) very; (5) extremely

Part Two (A)

Since you are a very important part of this survey, this section is designed to get to know you better. To help get acquainted, would you please answer the following questions as candidly as you can. A range of answers is provided to aid you more precisely in answering these topics.

18. IT IS ALWAYS IMPORTANT TO ASK OTHER WOMEN FOR THEIR ADVICE ON COSMETICS. [] Scale Reversed
(1) strongly agree; (2) agree; (3) neutral or indifferent; (4) disagree; (5) strongly disagree
19. MAKE-UP (COSMETICS) ENHANCES AN INDIVIDUAL'S PERSONAL DISTINCTION.[]
(1) strongly disagree; (2) disagree; (3) neutral or indifferent; (4) agree; (5) strongly agree
20. THE WAY IN WHICH AN INDIVIDUAL USES COSMETICS INDICATES HER SOCIAL REFINEMENT. []
(1) strongly disagree; (2) disagree; (3) neutral or indifferent; (4) agree; (5) strongly agree

21. HOW AN INDIVIDUAL USES MAKE-UP IS AN IMPORTANT FACTOR IN YOUR FIRST IMPRESSION OF HER. []
- (1) strongly disagree; (2) disagree; (3) neutral or indifferent;
(4) agree; (5) strongly agree
22. COSMETICS ARE ONE OF THE MOST IMPORTANT AIDS TO PERSONAL APPEARANCE FOR A WOMAN. []
- (1) strongly disagree; (2) disagree; (3) neutral or indifferent;
(4) agree; (5) strongly agree
23. THE USE OF COSMETICS GENERALLY IMPROVES AN INDIVIDUAL'S APPEARANCE. []
- (1) strongly disagree; (2) disagree; (3) neutral or indifferent;
(4) agree; (5) strongly agree
24. AN INDIVIDUAL GENERALLY IMPROVES HER SOCIAL ACCEPTANCE WITH THE USE OF COSMETICS. []
- (1) strongly disagree; (2) disagree; (3) neutral or indifferent;
(4) agree; (5) strongly agree
25. YOU CONSIDER IT IMPORTANT TO WORK HARD AT ALL TIMES TO KEEP YOURSELF ATTRACTIVE (NEATNESS, FIGURE, GROOMING). []
- (1) strongly disagree; (2) disagree; (3) neutral or indifferent;
(4) agree; (5) strongly agree
26. IT IS IMPORTANT TO READ VARIOUS MEDIA ON MAKE-UP TECHNIQUES. []
- (1) strongly disagree; (2) disagree; (3) neutral or indifferent;
(4) agree; (5) strongly agree
27. YOU CONSIDER IT SOCIALLY ADVANTAGEOUS TO ALWAYS BE IN STYLE. []
- (1) strongly disagree; (2) disagree; (3) neutral or indifferent;
(4) agree; (5) strongly agree
28. YOU CONSIDER YOURSELF VERY SOCIAL CONSCIOUS. []
- (1) strongly disagree; (2) disagree; (3) neutral or indifferent;
(4) agree; (5) strongly agree
29. YOU ENJOY VISITING OVER THE TELEPHONE. []
- (1) strongly disagree; (2) disagree; (3) neutral or indifferent;
(4) agree; (5) strongly agree

30. IT IS VERY IMPORTANT TO LISTEN TO DISCUSSIONS ON SOCIAL PROTOCOL.
[]
- (1) strongly disagree; (2) disagree; (3) neutral or indifferent;
(4) agree; (5) strongly agree
31. CONCERNING COSMETICS, YOU GENERALLY ENJOY GIVING YOUR ADVICE AND
VIEWPOINTS WHEN THEY ARE ASKED FOR. []
- (1) strongly disagree; (2) disagree; (3) neutral or indifferent;
(4) agree; (5) strongly agree.
32. IT IS IMPORTANT TO MAINTAIN ONE'S DISTINCTIVE INDIVIDUALITY THROUGH
THE USE OF COSMETICS, GROOMING AND CLOTHES. []
- (1) strongly disagree; (2) disagree; (3) neutral or indifferent;
(4) agree; (5) strongly agree
33. IT IS VERY IMPORTANT TO CONSTANTLY EVALUATE YOUR OWN MAKE-UP
TECHNIQUES. []
- (1) strongly disagree; (2) disagree; (3) neutral or indifferent;
(4) agree; (5) strongly agree
34. AS A RULE, YOU LIKE TO MEET NEW PEOPLE, GO TO SOCIAL GATHERINGS,
AND GENERALLY GET AROUND A LOT. []
- (1) strongly disagree; (2) disagree; (3) neutral or indifferent;
(4) agree; (5) strongly agree
35. WHEN YOU READ OR HEAR SOMETHING INTERESTING ABOUT COSMETICS, IT IS
IMPORTANT TO TALK IT OVER WITH SOMEBODY BEFORE YOU MAKE UP YOUR
OWN MIND. [] Scale Reversed
- (1) strongly agree; (2) agree; (3) neutral or indifferent;
(4) disagree; (5) strongly disagree

Part Two (B)

36. HOW MANY TIMES RECENTLY (LAST SIX MONTHS) HAVE YOU BEEN ASKED YOUR
ADVICE ON COSMETICS? []
- (1) not at all; (2) one to three; (3) four to six; (4) seven to ten;
(5) ten or more
- Compared with other women belonging to your circle of friends, are you
more or less likely than any of them to be asked for advice on:
37. WHAT COSMETIC BRANDS AND PRODUCTS ARE GOOD? []
- (1) seldom; (2) occasionally; (3) on the average; (4) frequently;
(5) on most occasions

38. HOW TO APPLY VARIOUS COSMETICS? []

- (1) seldom; (2) occasionally; (3) on the average; (4) frequently;
(5) on most occasions

39. WHEN VARIOUS TYPES OF COSMETICS ARE MOST APPROPRIATE AND ON WHAT OCCASIONS? []

- (1) seldom; (2) occasionally; (3) on the average; (4) frequently;
(5) on most occasions.

Part Two (C)

40. YOUR INTEREST AND EXPERIENCE IN USING COSMETICS BEGAN WHEN YOU WERE HOW OLD? []

- (1) twelve; (2) thirteen; (3) fourteen; (4) fifteen; (5) sixteen

41. WHERE DO YOU GET MOST OF YOUR IDEAS FOR COSMETICS AND RELATED BEAUTY AIDS? []

- (1) relatives; (2) friends; (3) news media and advertisements;
(4) observing other people; (5) trial and error

42. IN RELATION TO OTHER CO-EDS, WHAT AMOUNTS DO YOU SPEND ON COSMETICS AND PERSONAL POSSESSIONS? []

- (1) small; (2) below average; (3) average; (4) above average;
(5) high

Part Two (D)

Think for a moment of the people whom you see and talk with--family, friends, organizational acquaintances, relatives, etc. Please indicate in the blanks below, with the appropriate number, the approximate range of people with whom you are friendly and talk with fairly often.

43. INDIVIDUALS LIVING IN YOUR HOME RESIDENCE WHOM YOU TALK WITH FAIRLY OFTEN? []

- (1) one to three; (2) four to six; (3) seven to nine; (4) ten to twelve; (5) thirteen and over.

44. RELATIVES AND IN-LAWS NOT LIVING IN YOUR HOUSEHOLD WHOM YOU TALK WITH FAIRLY OFTEN? []

- (1) one to three; (2) four to seven; (3) eight to eleven; (4) twelve to fifteen; (5) fifteen and over

45. SORORITY SISTERS WHOM YOU TALK WITH FAIRLY OFTEN? []
- (1) one to four; (2) five to nine; (3) ten to fourteen; (4) fifteen to twenty; (5) twenty-one and over
46. FRIENDS AND ACQUAINTANCES YOU TALK WITH FAIRLY OFTEN? []
- (1) one to four; (2) five to nine; (3) ten to seventeen; (4) eighteen to twenty-five; (5) twenty-six and over
47. APPROXIMATELY HOW MANY ORGANIZATIONS, CLUBS, DISCUSSION GROUPS, RELIGIOUS ASSOCIATIONS IN TOTAL DO YOU BELONG? []
- (1) none; (2) one to three; (3) four to seven; (4) eight to eleven; (5) twelve and over
48. HOW MANY OFFICES IN ALL THESE ORGANIZATIONS HAVE YOU HELD? []
- (1) none; (2) one to two; (3) three to five; (4) six to eight; (5) nine and over

APPENDIX B

PROGRAM TO TEST NEW DATA USING
MULTIPLE DISCRIMINANT FUNCTION

Fortran Source List

ISN		SOURCE STATEMENT
0	\$IBFTC	
1		DIMENSION B(8), X(8)
2		B(1)=-0.026129
3		B(2)=-0.004696
4		B(3)=0.014914
5		B(4)=-0.325620
6		B(5)=-0.901502
7		B(6)=-0.188413
10		B(7)=-0.061103
11		B(8)=0.202744
12		B0=4.203103
13	26	READ25, ID, (X(I), I=1,8)
21	25	FORMAT(13,26X,F1.0,10X,F1.0,2X,2F1.0,4X,4F1.0)
22		XSCORE=0.0
23		DO 100 I=1,8
24	100	XSCORE=B(I)*X(I) +XSCORE
26		SCORE=XSCORE+B0 +5
27		ISC=SCORE*100.
30		PRINT35, ID, SCORE, ISC
31		PUNCH35, ID, SCORE, ISC
32	35	FORMAT(5X,15,3X,F6.3,13)
33		XSCORE=0.0
34		SCORE=0.0
35		GO TO 26
36		STOP
37		END

DISCRIMINANT FUNCTION FOR TWO GROUPS

Name of Fortran Program

DISCR

Purpose

The program computes a discriminant function for contrasting two groups and tests its significance. It also scores each subject using the discriminant function coefficients. The analysis may be repeated on subsets of the original variables.

Limitations

- (1) No more than 100 variables.
- (2) No more than 99,999 subjects in each group. The two groups may be unequal in size.
- (3) The number of subjects must exceed the number of variables.
- (4) No missing data. If a score is missing (blank or minus zero on the data card) it will be detected and that subject will be omitted from the analysis.

Preparation of Data

The program expects cards in the following sequence:

Title Card

Card Columns	Contents
1-72	Title to be printed on output (any alphameric characters).

Problem Card

Card Columns	Contents
1-5	Number of variables, right-justified (maximum 100).
6-10	Number of subjects in first group, right-justified.
11-15	Number of subjects in second group, right-justified.
16	Blank = input data located on normal tape (logical tape 5).
	4 = input data located on alternate tape (logical tape 4). Only the data cards described below can be on tape 4. The program and control cards (including this one) must still be on tape 5.

- 17 Number of extra variable format cards (in addition to this card).
- 18 Blank = program will number variables consecutively beginning with 1.
1 = names of variables supplied.
- 19 Number of reselections of original variables.
- 20 Blank = print the listing of sorted discriminant scores unless the number of subjects in the combined groups exceeds 5000 or the number of subjects in one group exceeds 4500. The program always computes discriminant scores and prints the classification table.
1 = suppress listing of sorted discriminant scores.
- 21 Blank = variable format of data cards without sequence checking.
1 = standard data card format with sequence checking.
- 37-72 Variable format for one subject, if required (must begin and end with parentheses and include subject identification in A format followed by his scores in F format).

Variable Format Cards (optional)

Card Columns	Contents
1-72	Continuation of variable format if needed. Up to 9 cards may be used, as specified in the problem card, column 17.

Group Names Card

Card Columns	Contents
1-12	Name of first group.
13-24	Name of second group.

Variable Names Cards (optional)

Card Columns	Contents
1-6	Name of first variable (any alphameric characters).
7-12	Name of second variable etc. until
67-72	Name of 12th variable. Continue on as many additional cards as necessary. The total number of names must equal the number of variables.

Data Cards

First comes a subject's identification, followed by his score on the first variable, his score on the second variable, etc. The columns must conform to the variable format statement or to the standard data format if that option is specified on the problem card, column 21.

Reselection Cards (optional)

Card Columns	Contents
10-11	Number of variables reselected.
12	Card number within reselection, beginning with blank or zero.
13-15	Number of first reselected variable.
16-18	Number of second reselected variable etc. until
70-72	Number of twentieth reselected variable. Continue on as many additional cards as necessary, each numbered in column 12 and containing up to twenty variable numbers per card.

(Additional problems may follow, each beginning with a title card and ending with data cards or the optional reselection cards.)

Method

Anderson, T. W. An Introduction to Multivariate Statistical Analysis. New York: Wiley, 1958. Pages 126-138.

Rao, C. R. Advanced Statistical Methods in Biometric Research. New York: Wiley, 1952. Pages 237-238 and 246-248.

Rao's discriminant function coefficients are multiplied by a constant so the sum of squares of the coefficients equals one, and these are printed under the heading RAW DISCRIMINANT FUNCTION COEFFICIENTS.

Subroutines Used

This program calls subroutines with the following names: ALGAMA, FPROB.

Scratch Tapes Used

Logical tape number 1.

Timing

Sample running times are as follows:

Number of Variables	Number of Subjects	Time to Load and Execute Binary Program, Minutes
48	100	1.8
100	268	7.6

The Spearman-Brown Prediction Formula

$$r_K = \frac{K r_1}{1 + (K-1) r_1}$$

K = Number of Questions in
This Survey

Table Analysis of Variance

Source	D.F.	M.S.	E(M.S.)
Between Question	17.	38.5906	$.1736 \sigma_n^2 + K \sigma_\pi^2$
Within Question	3906.	.7410	$.7410 \sigma_n^2$

Intra class correlation:

$$r_1 = \frac{\sigma_\pi^2}{\sigma_\pi^2 + \sigma_n^2} = \frac{.174}{.741 + .174}$$

$$= \frac{.174}{.915} = .190$$

$$r_K = \frac{K r_1}{1 + (K-1) r_1} = \frac{18(.19)}{1 + 17 (.19)}$$

$$= \frac{3.42}{1 + 3.23} = \frac{3.42}{4.23} = \underline{\underline{.81}} \text{ reliability}$$

where r_K - reliability of the average of K measurements. K = 18 Likert scale questions.

For details of Spearman-Brown prediction procedure, see: B. J. Winer, Statistical Principles in Experimental Design (New York: McGraw-Hill Book Company, 1962), p. 127.

APPENDIX C

Table 14

Combined Data for Frequency and Percentage Distribution in
Determining Opinion Leadership Profile
(218 Total Respondents)

Questions	Constant Interval Scale					Mean
	1	2	3	4	5	
Q1	8(3.7%)	8(3.7%)	34(15.6%)	12(5.5%)	156(71.6%)	4.37
Q2	0(0.0%)	0(0.0%)	32(14.7%)	87(39.9%)	99(45.4%)	4.30
Q3	0(0.0%)	2(0.9%)	71(32.6%)	52(23.9%)	93(42.7%)	4.08
Q4	0(0.0%)	3(1.4%)	122(56.0%)	65(29.8%)	28(12.8%)	3.54
Q5	5(2.3%)	24(11.0%)	32(14.7%)	26(11.9%)	131(60.1%)	4.16
Q6	0(0.0%)	5(2.3%)	42(19.3%)	131(60.1%)	40(18.3%)	3.94
Q7	0(0.0%)	7(3.2%)	171(78.4%)	34(15.6%)	6(2.8%)	3.17
Q8	1(0.5%)	19(8.7%)	62(28.4%)	42(19.3%)	94(43.1%)	3.95
Q9	6(2.8%)	12(5.5%)	78(35.8%)	89(40.8%)	33(15.1%)	3.60
Q10	0(0.0%)	1(0.5%)	40(18.3%)	106(48.6%)	71(32.6%)	4.13
Q11	0(0.0%)	2(0.9%)	122(56.0%)	71(32.6%)	23(10.6%)	3.51
Q12	0(0.0%)	14(6.4%)	85(39.0%)	66(30.3%)	53(24.3%)	3.72
Q13	4(1.8%)	19(8.7%)	125(57.3%)	59(27.1%)	11(5.0%)	3.24
Q14	0(0.0%)	0(0.0%)	27(12.4%)	80(36.7%)	111(50.9%)	4.56
Q15	22(10.1%)	97(44.5%)	65(29.8%)	21(9.6%)	13(6.0%)	2.50
Q16	0(0.0%)	0(0.0%)	37(17.0%)	110(50.5%)	71(32.6%)	4.15
Q17	1(0.5%)	11(5.0%)	91(41.7%)	67(30.7%)	48(22.0%)	3.68

Source: Primary

Table 15

Data for Frequency and Percentage Distribution by Respondents Mentioned One Time
as Opinion Leaders in Determining Opinion Leadership Profile
(47 Total Respondents)

Questions	Constant Interval Scale					Mean
	1	2	3	4	5	
Q1	0(0.0%)	2(4.3%)	11(23.4%)	2(4.3%)	32(68.1%)	4.36
Q2	0(0.0%)	0(0.0%)	10(21.3%)	19(40.4%)	18(38.3%)	4.17
Q3	0(0.0%)	1(2.1%)	18(38.3%)	11(23.4%)	17(36.2%)	3.93
Q4	0(0.0%)	0(0.0%)	33(70.2%)	8(17.0%)	6(12.8%)	3.42
Q5	3(6.4%)	3(6.4%)	5(10.6%)	5(10.6%)	31(66.0%)	4.17
Q6	0(0.0%)	2(4.3%)	6(12.8%)	33(70.2%)	6(12.8%)	3.91
Q7	0(0.0%)	2(4.3%)	38(80.9%)	7(14.9%)	0(0.0%)	3.10
Q8	1(2.1%)	5(10.6%)	10(21.3%)	9(19.1%)	22(46.8%)	3.95
Q9	0(0.0%)	4(8.5%)	18(38.3%)	19(40.4%)	6(12.8%)	3.57
Q10	0(0.0%)	0(0.0%)	9(19.1%)	26(55.3%)	12(25.5%)	4.06
Q11	0(0.0%)	0(0.0%)	24(51.1%)	19(40.4%)	4(8.5%)	3.57
Q12	0(0.0%)	3(6.4%)	12(25.5%)	18(38.3%)	14(29.8%)	3.91
Q13	1(2.1%)	2(4.3%)	25(53.2%)	14(29.8%)	5(10.6%)	3.40
Q14	0(0.0%)	0(0.0%)	5(10.6%)	20(42.6%)	22(46.8%)	4.36
Q15	3(6.4%)	18(38.3%)	16(34.0%)	8(17.0%)	2(4.3%)	2.68
Q16	0(0.0%)	0(0.0%)	3(6.4%)	21(44.7%)	23(48.9%)	4.42
Q17	0(0.0%)	4(8.5%)	14(29.8%)	15(31.9%)	14(29.8%)	3.82

Source: Primary

Table 16

Data for Frequency and Percentage Distribution by Respondents Mentioned Two Times
as Opinion Leaders in Determining Opinion Leadership Profile
(14 Total Respondents)

Questions	Constant Interval Scale					Mean
	1	2	3	4	5	
Q1	1(7.1%)	1(7.1%)	1(7.1%)	0(0.0%)	11(78.6%)	4.35
Q2	0(0.0%)	0(0.0%)	1(7.1%)	8(57.1%)	5(35.7%)	4.14
Q3	0(0.0%)	0(0.0%)	5(35.7%)	2(14.3%)	7(50.0%)	4.14
Q4	0(0.0%)	0(0.0%)	9(64.3%)	3(21.4%)	2(14.3%)	3.50
Q5	0(0.0%)	1(7.1%)	3(21.4%)	2(14.3%)	8(57.1%)	4.21
Q6	0(0.0%)	0(0.0%)	3(21.4%)	9(64.3%)	2(14.3%)	3.92
Q7	0(0.0%)	0(0.0%)	12(85.7%)	2(14.3%)	0(0.0%)	3.14
Q8	0(0.0%)	0(0.0%)	3(21.4%)	4(28.6%)	7(50.0%)	4.28
Q9	0(0.0%)	1(7.1%)	5(35.7%)	7(50.0%)	1(7.1%)	3.57
Q10	0(0.0%)	0(0.0%)	2(14.3%)	8(57.1%)	4(28.6%)	4.14
Q11	0(0.0%)	0(0.0%)	11(78.6%)	2(14.3%)	1(7.1%)	3.28
Q12	0(0.0%)	0(0.0%)	4(28.6%)	6(42.9%)	4(28.6%)	4.00
Q13	0(0.0%)	0(0.0%)	8(57.1%)	6(42.9%)	0(0.0%)	3.42
Q14	0(0.0%)	0(0.0%)	1(7.1%)	5(35.7%)	8(57.1%)	4.50
Q15	0(0.0%)	6(42.9%)	7(50.0%)	0(0.0%)	1(7.1%)	2.71
Q16	0(0.0%)	0(0.0%)	1(7.1%)	8(57.1%)	5(35.7%)	4.28
Q17	0(0.0%)	0(0.0%)	6(42.9%)	7(50.0%)	1(7.1%)	3.65

Source: Primary

Table 17

Data for Frequency and Percentage Distribution by Respondents Mentioned Three or More
Times as Opinion Leaders in Determining Opinion Leadership Profile
(18 Total Respondents)

Questions	Constant Interval Scale					Mean
	1	2	3	4	5	
Q1	2(11.1%)	0(0.0%)	1(5.6%)	3(16.7%)	12(66.7%)	4.27
Q2	0(0.0%)	0(0.0%)	3(16.7%)	9(50.0%)	6(33.3%)	4.16
Q3	0(0.0%)	0(0.0%)	3(16.7%)	8(44.4%)	7(38.9%)	4.22
Q4	0(0.0%)	0(0.0%)	12(66.7%)	4(22.2%)	2(11.1%)	3.44
Q5	1(5.6%)	0(0.0%)	4(22.2%)	1(5.6%)	12(66.7%)	4.27
Q6	0(0.0%)	0(0.0%)	5(27.8%)	11(61.1%)	2(11.1%)	3.83
Q7	0(0.0%)	0(0.0%)	12(66.7%)	4(22.2%)	2(11.1%)	3.44
Q8	0(0.0%)	0(0.0%)	7(38.9%)	6(33.3%)	5(27.8%)	3.88
Q9	0(0.0%)	1(5.6%)	10(55.6%)	4(22.2%)	3(16.7%)	3.33
Q10	0(0.0%)	0(0.0%)	3(16.7%)	9(50.0%)	6(33.3%)	4.16
Q11	0(0.0%)	0(0.0%)	7(38.9%)	9(50.0%)	2(11.1%)	3.72
Q12	0(0.0%)	4(22.2%)	5(27.8%)	7(38.9%)	2(11.1%)	3.38
Q13	0(0.0%)	1(5.6%)	11(61.1%)	5(27.8%)	1(5.6%)	3.33
Q14	0(0.0%)	0(0.0%)	2(11.1%)	8(44.4%)	8(44.4%)	4.33
Q15	2(11.1%)	7(38.9%)	7(38.9%)	2(11.1%)	0(0.0%)	2.38
Q16	0(0.0%)	0(0.0%)	1(5.6%)	11(61.1%)	6(33.3%)	4.61
Q17	0(0.0%)	0(0.0%)	7(38.9%)	7(38.9%)	4(22.2%)	3.83

Source: Primary

Table 18

Influencees' Data on Frequency and Percentage Distribution in
Determining Opinion Leader Profile
(139 Total Respondents)

Questions	Constant Interval Scale					Mean
	1	2	3	4	5	
Q1	5 (3.6%)	5 (3.6%)	21 (15.1%)	7 (5.0%)	101 (72.7%)	4.39
Q2	0 (0.0%)	0 (0.0%)	18 (12.9%)	51 (36.7%)	70 (50.4%)	4.37
Q3	0 (0.0%)	1 (0.7%)	45 (32.4%)	31 (22.3%)	62 (44.6%)	4.10
Q4	0 (0.0%)	3 (2.2%)	68 (48.9%)	50 (36.0%)	18 (12.9%)	3.59
Q5	1 (0.7%)	20 (14.4%)	20 (14.4%)	18 (12.9%)	80 (57.6%)	4.11
Q6	0 (0.0%)	3 (2.2%)	28 (20.7%)	78 (56.1%)	30 (21.6%)	3.97
Q7	0 (0.0%)	5 (3.6%)	109 (78.4%)	21 (15.1%)	4 (2.9%)	3.17
Q8	0 (0.0%)	14 (10.1%)	42 (30.2%)	23 (16.5%)	60 (43.2%)	3.92
Q9	6 (4.3%)	6 (4.3%)	45 (32.4%)	59 (42.4%)	23 (16.5%)	3.62
Q10	0 (0.0%)	1 (0.7%)	26 (18.7%)	63 (45.3%)	49 (35.3%)	4.15
Q11	0 (0.0%)	2 (1.4%)	80 (57.6%)	41 (29.5%)	16 (11.5%)	3.51
Q12	0 (0.0%)	7 (5.0%)	64 (46.0%)	35 (25.2%)	33 (23.7%)	3.67
Q13	3 (2.2%)	16 (11.5%)	81 (58.3%)	34 (24.5%)	5 (3.6%)	3.15
Q14	0 (0.0%)	0 (0.0%)	19 (13.7%)	47 (33.8%)	73 (52.5%)	4.38
Q15	17 (12.2%)	66 (47.5%)	35 (25.2%)	11 (7.9%)	10 (7.2%)	2.50
Q16	0 (0.0%)	0 (0.0%)	32 (23.0%)	70 (50.4%)	37 (26.6%)	4.00
Q17	1 (0.7%)	7 (5.0%)	64 (46.0%)	38 (27.3%)	29 (20.9%)	3.52

Source: Primary

Table 19

Selective Data (Total, Influencee, One, Two and Three Vote Respondents) Concerning
Relative Rankings of Differentiated Group Responses Concerning
Experience, Source of Innovation and
Spending Patterns in Cosmetic Behavior

Questions Broken Down by Groups	Constant Interval Scale					Mean
	1	2	3	4	5	
<hr/>						
All Data						
Total = 218						
Q40	29 (13.3%)	54 (24.8%)	55 (25.2%)	36 (16.5%)	44 (20.2%)	3.00
Q41	8 (3.7%)	54 (24.8%)	88 (40.4%)	48 (22.0%)	20 (9.2%)	3.08
Q42	23 (10.6%)	26 (11.9%)	134 (61.5%)	31 (14.2%)	4 (1.8%)	2.84
 Influencees						
Total = 139						
Q40	18 (12.9%)	38 (27.3%)	36 (25.9%)	14 (10.1%)	33 (23.7%)	3.04
Q41	4 (2.9%)	38 (27.3%)	55 (39.6%)	31 (22.3%)	11 (7.9%)	3.05
Q42	19 (13.7%)	18 (12.9%)	92 (66.2%)	8 (5.8%)	2 (1.4%)	2.68
 One Vote						
Total = 47						
Q40	6 (12.8%)	6 (12.8%)	13 (27.7%)	13 (27.7%)	9 (19.1%)	3.27
Q41	2 (4.3%)	11 (23.4%)	22 (46.8%)	9 (19.1%)	3 (6.4%)	3.00
Q42	2 (4.3%)	7 (14.9%)	28 (59.6%)	8 (17.0%)	2 (4.3%)	3.02
 Two Vote						
Total = 14						
Q40	2 (14.3%)	3 (21.4%)	3 (21.4%)	4 (28.6%)	2 (14.3%)	3.07
Q41	1 (7.1%)	2 (14.3%)	6 (42.9%)	2 (14.3%)	3 (21.4%)	3.28
Q42	0 (0.0%)	1 (7.1%)	9 (64.3%)	4 (28.6%)	0 (0.0%)	3.21

Table 19 (Cont.)

Selective Data (Total, Influencee, One, Two and Three Vote Respondents) Concerning
Relative Rankings of Differentiated Group Responses Concerning
Experience, Source of Innovation and
Spending Patterns in Cosmetic Behavior

Questions Broken Down by Groups	Constant Interval Scale					Mean
	1	2	3	4	5	
Three Vote Total = 18						
Q40	3(16.7%)	7(38.9%)	3(16.7%)	5(27.8%)	0(0.0%)	2.55
Q41	1(5.6%)	3(16.7%)	5(27.8%)	6(33.3%)	3(16.7%)	3.38
Q42	2(11.1%)	0(0.0%)	5(27.8%)	11(61.1%)	0(0.0%)	3.50

Source: Primary

Table 20

The Sorority Cosmetic Opinion Leader's Relative Sphere of Influence

Opinion Leader Identity	Family "Q" 43	Relatives "Q" 44	Sorority "Q" 45	Friends "Q" 46	Organizations "Q" 47	Offices "Q" 48	Votes
259	3 (7 to 9)	2 (4 to 7)	3 (10 to 14)	3 (10 to 17)	2 (1 to 3)	2 (1 to 2)	44
175	1 (1 to 3)	1 (1 to 3)	5 (20 up)	2 (5 to 9)	2 (1 to 3)	3 (3 to 5)	23
84	3 (7 to 9)	1 (1 to 3)	2 (5 to 9)	2 (5 to 9)	2 (1 to 3)	3 (3 to 5)	15
116	5 (13 up)	1 (1 to 3)	3 (10 to 14)	2 (5 to 9)	2 (1 to 3)	2 (1 to 2)	15
262	1 (1 to 3)	1 (1 to 3)	5 (25 up)	4 (18 to 25)	2 (1 to 3)	3 (3 to 5)	11
295	3 (7 to 9)	2 (4 to 7)	3 (10 to 14)	3 (10 to 17)	2 (1 to 3)	2 (1 to 2)	11
52	1 (1 to 3)	1 (1 to 3)	4 (15 to 20)	5 (26 up)	2 (1 to 3)	3 (3 to 5)	9
18	4 (10 to 12)	2 (4 to 7)	3 (10 to 14)	3 (10 to 17)	2 (1 to 3)	3 (3 to 5)	9
194	1 (1 to 3)	3 (8 to 11)	5 (21 up)	3 (10 to 17)	3 (4 to 7)	5 (9 up)	8

Table 20 (Cont.)

The Sorority Cosmetic Opinion Leader's Relative Sphere of Influence

Opinion Leader Identity	Family "Q" 43	Relatives "Q" 44	Sorority "Q" 45	Friends "Q" 46	Organizations "Q" 47	Offices "Q" 48	Votes
354	2 (4 to 6)	2 (4 to 7)	5 (21 up)	5 (26 up)	3 (4 to 7)	2 (1 to 2)	6
309	4 (10 to 12)	2 (4 to 7)	3 (10 to 14)	2 (5 to 9)	3 (4 to 7)	4 (6 to 8)	5
196	1 (1 to 3)	4 (12 to 15)	5 (21 up)	5 (26 up)	5 (12 up)	3 (3 to 5)	4
86	2 (4 to 6)	1 (1 to 3)	2 (5 to 9)	1 (1 to 4)	2 (1 to 3)	1 (0)	4
161	1 (1 to 3)	1 (1 to 3)	2 (5 to 9)	2 (5 to 9)	3 (4 to 7)	2 (1 to 2)	4
195	3 (7 to 9)	3 (8 to 11)	3 (10 to 14)	3 (10 to 17)	2 (1 to 3)	2 (1 to 2)	4
28	2 (4 to 6)	1 (1 to 3)	3 (10 to 14)	3 (10 to 17)	4 (8 to 11)	5 (9 up)	4
262	1 (1 to 3)	1 (1 to 3)	5 (21 up)	4 (18 to 25)	2 (1 to 3)	3 (3 to 5)	4
315	5 (13 up)	4 (12 to 15)	5 (21 up)	5 (26 up)	2 (1 to 3)	1 (0)	3

Table 20 (Cont.)

The Sorority Cosmetic Opinion Leader's Relative Sphere of Influence

Opinion Leader Identity	Family "Q" 43	Relatives "Q" 44	Sorority "Q" 45	Friends "Q" 46	Organizations "Q" 47	Offices "Q" 48	Votes
3	5 (13 up)	3 (8 to 11)	4 (15 to 20)	3 (10 to 17)	3 (4 to 7)	2 (1 to 2)	3
107	5 (13 up)	1 (1 to 3)	4 (15 to 20)	1 (1 to 4)	2 (1 to 3)	3 (3 to 5)	3
198	2 (4 to 6)	4 (12 to 15)	5 (21 up)	4 (18 to 25)	3 (4 to 7)	3 (3 to 5)	3
197	1 (1 to 3)	4 (12 to 15)	5 (21 up)	5 (26 up)	5 (12 up)	3 (3 to 5)	3
322	2 (4 to 6)	1 (1 to 3)	4 (15 to 20)	2 (5 to 9)	2 (1 to 3)	1 (0)	3
7	4 (10 to 12)	1 (1 to 3)	3 (10 to 14)	2 (5 to 9)	2 (1 to 3)	1 (0)	3
345	2 (4 to 7)	1 (1 to 3)	5 (21 up)	3 (10 to 17)	2 (1 to 3)	1 (0)	3

Source: Primary

Table 21
Analysis of Variance for
Opinion Leadership Questionnaire Survey

Question No. 18			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.7328	0.9203
Class	2	2.0505	2.5750
Error	210	0.7963	
Question No. 19			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.3287	0.4723
Class	2	1.4620	2.1009
Error	210	0.6960	
Question No. 20			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	1.3817	1.1963
Class	2	3.7561	3.2520 ^a
Error	210	1.1550	
Question No. 21			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.1695	0.2942
Class	2	0.5369	0.9321
Error	210	0.5760	
Question No. 22			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.1128	0.1664
Class	2	1.3464	1.9863
Error	210	0.6779	
Question No. 23			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.7664	2.2442
Class	2	0.1010	0.2959
Error	210	0.3415	

^a(P < .05)

Table 21 (Cont.)
Analysis of Variance for
Opinion Leadership Questionnaire Survey

Question No. 24			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.7926	0.9348
Class	2	1.5826	1.8665
Error	210	0.8479	
Question No. 25			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.5771	1.0798
Class	2	0.6590	1.2330
Error	210	0.5344	
Question No. 26			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.6378	.9908
Class	2	0.6269	.9738
Error	210	0.6437	
Question No. 27			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	1.0307	1.3505
Class	2	0.4509	0.5908
Error	210	0.7632	
Question No. 28			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	1.3267	1.7187
Class	2	1.7804	2.3064
Error	210	0.7719	
Question No. 29			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.5746	0.4638
Class	2	0.0385	0.0311
Error	210	1.2388	
Question No. 30			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	1.8050	2.4545
Class	2	0.6430	0.8744
Error	210	0.7354	

Table 21 (Cont.)

Analysis of Variance for
Opinion Leadership Questionnaire Survey

Question No. 31			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.7877	1.2638
Class	2	3.0586	4.9070 ^a
Error	210	0.6233	
Question No. 32			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	1.0679	1.5301
Class	2	0.2124	0.3043
Error	210	0.6980	
Question No. 33			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	2.2594	4.3262
Class	2	0.9299	1.7805
Error	210	0.5223	
Question No. 34			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.5548	0.8651
Class	2	3.7525	5.8514 ^b
Error	210	0.6413	
Question No. 35			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.6251	0.6939
Class	2	3.2009	3.5531 ^a
Error	210	0.9008	
Question No. 36			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.7208	1.1861
Class	2	20.4609	33.6737 ^b
Error	210	0.6076	

^a(P < .05) ^b(P < .01)

Table 21 (Cont.)
Analysis of Variance for
Opinion Leadership Questionnaire Survey

Question No. 37			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	1.5448	2.4084
Class	2	8.8064	13.7292 ^b
Error	210	0.6414	
Question No. 38			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.9484	1.2400
Class	2	8.0045	10.4655 ^b
Error	210	0.7648	
Question No. 39			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	2.9676	3.4398
Class	2	8.5375	9.8960 ^b
Error	210	0.8627	
Question No. 40			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.7654	0.4350
Class	2	3.9728	2.2577
Error	210	1.7596	
Question No. 41			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.6032	0.6104
Class	2	1.2548	1.2700
Error	210	0.9881	
Question No. 42			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.6250	0.9064
Class	2	6.0368	8.7546
Error	210	0.6896	

^b($p < .01$)

Table 21 (Cont.)

Analysis of Variance for
Opinion Leadership Questionnaire Survey

Question No. 43			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	9.5307	4.7251
Class	2	4.5067	2.2340
Error	210	2.0170	
Question No. 44			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	1.6277	1.0826
Class	2	3.0460	2.0259
Error	210	1.5035	
Question No. 45			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	2.9615	1.7074
Class	2	2.4842	1.4323
Error	210	1.7345	
Question No. 46			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.8917	0.5807
Class	2	1.6606	1.0813
Error	210	1.5356	
Question No. 47			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.6169	1.5686
Class	2	1.1164	2.8385
Error	210	0.3933	
Question No. 48			
<u>Source</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Sorority	5	0.8848	1.3592
Class	2	0.4606	0.7076
Error	210	0.6509	

Source: Primary

VITA

Bruce Gunn was born in Ridley Park, Pennsylvania on May 2, 1937. He spent his early life in the vicinity of Wilmington, Delaware. At the age of twelve he moved with his family to Coatesville, Pennsylvania where he completed his Junior High School education at Gordon Junior High in June of 1952. In September of 1952, he entered Scott Senior High also in Coatesville and was graduated in 1956.

He entered Davis and Elkins College in West Virginia in September, 1957 and remained there until June, 1960 when he transferred to Concord College. He remained at Concord College in West Virginia during the fall semester of the 1960-61 academic year. He then transferred to West Virginia University in January, 1961. He attended West Virginia University until January, 1962, when he received his Bachelor of Science degree.

In September, 1962, he entered Louisiana State University as a graduate student in the Department of Management and Marketing and in May of 1964 received his Master of Science degree in Marketing. At this time he entered the doctoral program in Marketing and is presently a candidate for a Doctorate of Philosophy degree in the College of Business Administration.

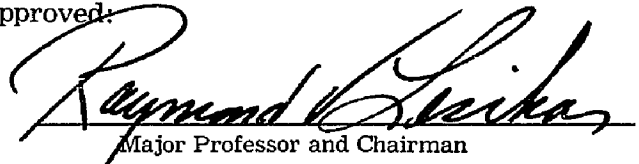
EXAMINATION AND THESIS REPORT

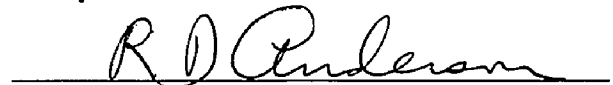
Candidate: Bruce Gunn

Major Field: Marketing

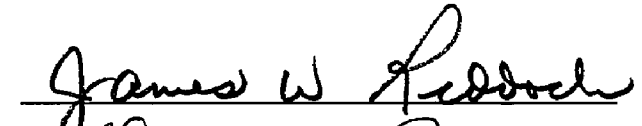
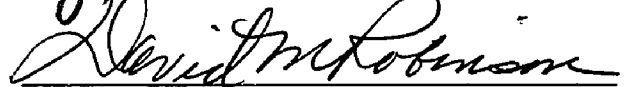
Title of Thesis: A Systems Approach to Consumer Motivation With Emphasis On
Procedures For Identifying Opinion Leaders

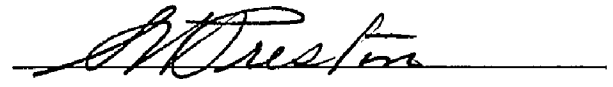
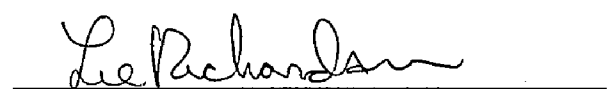
Approved:


Major Professor and Chairman


Dean of the Graduate School

EXAMINING COMMITTEE:

Date of Examination:

July 9, 1968